

M U S T E R

Multi-Site Teacher Education Research Project

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Discussion Paper

29

Primary Teacher Education in
Action: a Peep into the TTC
Classrooms at the National
Teacher Training College,
Lesotho

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Multi-Site Teacher Education Research Project (MUSTER)

MUSTER is a collaborative research project co-ordinated from the Centre for International Education at the University of Sussex Institute of Education. It has been developed in partnership with:

- The Institute of Education, University of Cape Coast, Ghana.
- The Institute of Education, The National University of Lesotho.
- The Centre for Educational Research and Training, University of Malawi.
- The Faculty of Education, University of Durban-Westville, South Africa.
- The School of Education, The University of the West Indies, St. Augustine's Campus, Trinidad.

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MUSTER is focused on generating new understandings of teacher education before, during and after the point of initial qualification as a teacher. Its concerns include exploring how new teachers are identified and selected for training programmes, how they acquire the skills they need to teach effectively, and how they experience training and induction into the teaching profession. The research includes analytical concerns with the structure and organisation of teacher education, the form and substance of teacher education curriculum, the identity, roles and cultural experience of trainee teachers, and the costs and probable benefits of different types of initial teacher training.

MUSTER is designed to provide opportunities to build research and evaluation capacity in teacher education in developing countries through active engagement with the research process from design, through data collection, to analysis and joint publication. Principal researchers lead teams in each country and are supported by three Sussex faculty and three graduate researchers.

This series of discussion papers has been created to provide an early opportunity to share output from sub-studies generated within MUSTER for comment and constructive criticism. Each paper takes a theme within or across countries and offers a view of work in progress.

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LIST OF ABBREVIATIONS

APTC	Advanced Primary Teachers' Certificate
DEP	Diploma in Education (Primary)
L1, L2	First and Second Language
LIET	Lesotho In-service Education for Teachers
NTTC	National Teacher Training College
NUL	National University of Lesotho
PTC	Primary Teachers' Certificate
MUSTER	Multisite Teacher Education Research (MUSTER) Project

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ABSTRACT

This study complements other studies in the MUSTER Lesotho series (Stuart et al 2000, Lefoka and Stuart 2001) to explore aspects of the new Diploma in Education (Primary) (DEP) curriculum “in action” at the National Teacher Training College. Eight lecturers were observed teaching English, maths, science and educational foundations. The report presents a descriptive analysis of 19 classes, focusing particularly on aims and objectives, content, pedagogy, teaching/learning materials, assessment, the ways in which tutors model good practice to students, and how they create links to the primary school. It concludes that the curriculum as delivered, although adhering quite closely to the course outlines as laid down in the curriculum document, is inconsistent with the spirit of the overall programme goals and objectives. Practice in the college has apparently not yet changed to incorporate the more constructivist and reflective approaches envisaged for the DEP.

CHAPTER 1

BACKGROUND AND CONTEXT

1.1 Introduction

The National Teacher Training College (NTTC) has since its inception in 1975 and until recently, been the only institution in Lesotho that was charged with the responsibility of training teachers for the primary sub-sector. This situation changed when the National University of Lesotho (NUL) re-introduced a degree programme for primary school teachers through the part-time mode. For many years the College had the following programmes for the primary sub-sector: Primary Teacher Certificate (PTC), Advanced Primary Teacher Certificate (APTC) and Diploma in Primary Education (DPE). The last two were for serving teachers. In addition to these full-time programmes, the College offered part-time programmes such as PTC for teachers and Lesotho Inservice Education for Teachers (LIET) VI for principals of schools. NTTC (1997) notes that the need for programme rationalisation and reform had been felt at the College for a number of years. As a result, the College engaged a team of consultants to evaluate the primary teacher education programmes and at the same time engaged in a series of academic debates. The purpose for the academic debates was on how to reform the programmes. According to NTTC (1997:5), a conference held in 1995 “signaled that after 21 years of PTC programme provision, during which there had been little or no change, it was time to conduct a major review of all programmes provided by the Primary Division with a view to reform”. The debates referred to here and the consultancy study on Teaching and Learning Processes at NTTC (Burke & Sugrue, 1994) were some of the activities that contributed to the decision to reform the primary programmes. The major reform was to shift from certificates to diploma programmes for initial training, hence the introduction of the Diploma in Education (Primary) (DEP).

This new programme was intended to constitute a paradigm shift towards a more constructivist approach to knowledge and towards a view of the teacher as a “reflective practitioner”. Such a programme calls for both lecturers and their students to reflect systematically on teaching and learning processes. The DEP class size seems to be of the type that is suitable for the approach being promoted in the programme, as class sizes range between 32 and 33, compared with the PTC, which had 50 students for small group teaching.

1.2 Rationale

The curriculum for teacher preparation is very complex. Findings from the MUSTER Project suggests it exists in many forms; in the printed documents, in the minds of the lecturers, as delivered in the lecture rooms and as experienced by the student teachers.

In Lesotho the first - Curriculum as Documented - has already been studied (Lefoka and Stuart 2001), and lecturers have been interviewed (Stuart et al. 2000). The study of the documented curriculum revealed a significant disjunction between the overall programme goals as set out in the Preamble and the aims and objectives set out for the subject specific courses. It was found that the overall aims and objectives are

framed in terms of broad professional competences, and those for the subjects ... are much more narrowly conceived.... The two sets seem to come from different discourses or paradigms: the overall aims seem to propose the 'reflective practitioner' model of teacher preparation, while the subject aims point to the 'effective instructor' model. (Lefoka and Stuart 2001: 24)

The present sub-study, in venturing to explore the "curriculum in action", builds on this earlier work in an attempt to see which paradigm predominates in the classroom. It has to be noted here that classroom observation studies are not a common feature in institutions of higher learning especially in the context of Lesotho. However, similar studies at the primary and high school levels have been undertaken in Lesotho before (Chabane et al 1989).

1.3 Purpose of the Study

The study is part of the Curriculum strand of the MUSTER project, which intended to explore how new teachers acquire the knowledge, skills and values needed for their professional career. The present study is expected to provide answers to a number of related questions.

1.4 Questions

1. The key question for this sub-study is: how does the curriculum as delivered compare with the curriculum as set out in the documents, in terms of aims and objectives, content, pedagogy, teaching/learning materials and assessment?
2. Other questions that the study seeks to answer include:
 - i. What sorts of teaching/learning processes are going on? Are these good models for primary teaching?
 - ii. What kinds of knowledge are being presented?
 - iii. What textbooks and/or teaching/learning materials are being used, and how?
 - iv. How are the lecturers checking the students' learning?
 - v. What are the lecturers' teaching styles?
 - vi. How does the content knowledge link to the primary school syllabus and/or teaching?

CHAPTER 2

RESEARCH METHODS

2.1 Introduction

The Curriculum in Action sub-study used classroom observation as the key method for collecting data. The focus was on the four core subjects: mathematics, science, English and educational foundations. Nineteen lessons were observed in all: five in maths, English and educational foundations, and four in science. Only classes that were being taught to the new Diploma in Education (Primary) (DEP) student teachers were used.

2.2 Population

The tutors observed came from science, mathematics, English and educational foundations departments. Table 1 presents the number of lecturers that were observed according to the department in which they taught. With the exception of English, all tutors were locals. All in all there were eight lecturers who were willing to participate in the sub-study particularly in being observed. As a result, the sample size was opportunistic, which means that the researchers had no control on variables such as gender and the age groups of the participants.

Table 1: Number of Lecturers who participated in the Study by Department

Subject	Number of Lecturers and their Gender		
	Female	Male	Total
English	2	-	2
Mathematics	2	-	2
Science	-	2	2
Education	1	1	2
Total	5	3	8

2.3 Data Collection

Data was collected through tape-recording and note-taking. The tape-recorded information was transcribed and subsequently used to supplement the observation notes.

As far as possible, two observers observed a lesson. There were few exceptions such as the pilot observations where four observers took notes. In three of the English, two Mathematics, two science and two educational foundations lessons only one observer was present, still taking notes and using a tape recorder.

A pilot observation was carried out with a mathematics lecturer. Unlike the rest of the other lecturers who were observed teaching small groups, she was observed teaching a large group in the lecture hall.

Observers took notes on the lecturers' and the student teachers' activities including activities that were not on task. They had to record the activities at intervals of five minutes with the purpose of establishing the time individual lecturers and their students spend on each activity. They were to take notes on everything that took place in the class including those that were not on task.

Each subject was supposed to have been observed five times. However, due to some difficulties that were experienced some were observed five times while others were observed for less than five times.

2.5 Data analysis

The first task in analysing the information was to transcribe the tapes so as to supplement the notes taken during classroom observations. The next step was to study notes and/or anecdotes and then to present these in the form of cases. In presenting each case, interpretations are made specifically on issues that relate to the curriculum as documented. These included issues such as aims and objectives, methods of teaching used and whether or not teaching was related to the primary school context.

2.6 Some Limitations

Selection of staff to participate in this sub-study was difficult for several reasons. Although some tutors had indicated during earlier interviews with another MUSTER researcher that they would be willing to be observed, in the event most were reluctant. For example, a decision to stop observing one of the science lecturers was made after several attempts to visit his class; either he did not turn up, or he came in and left before the lesson was finished. Another difficulty had to do with the fact that only a few lecturers were teaching the new diploma students.

CHAPTER 3

FINDINGS

3.1 Introduction

This section of the report presents the findings of the Curriculum in Action sub-study of the MUSTER project. The Diploma in Education (Primary) curriculum document provides aims and objectives, content, and assessment methods as well as textbooks and reference materials. All the lessons observed were clearly derived from the curriculum document.

3.2 Characteristics of the Tutors

The demographic characteristics of the lecturers who participated in this sub-study indicate that five out of eight of them held a junior degree, two had Masters and one a doctorate. Their teaching experience varied from one to twenty years and the majority had served the college for 6 years or more, while their ages ranged from 35 to 67. Regarding gender, five out of the eight tutors who participated in the study were females and three were males.

3.3 The Case of English

Five English lessons, two of which were taught by Mrs. C and three by Mrs. D, were observed. The first two lessons were on paragraphing while the other three covered three different topics: substitution tables, teaching first and second language and methods of teaching a reading lesson. The class sizes for these lessons varied from 26 to 32.

3.3.1 *The aims and objectives*

In studying the aims and objectives of the course against the curriculum as enacted, there appeared to be consistency in that the objectives for the lessons taught were clearly derived from the curriculum document. The following are examples of aims taken from the curriculum as documented.

- a) To help student teachers demonstrate a broad knowledge of 1st and 2nd language learning/teaching, theories and a critical ability to assess the same.
- b) To possess a basic functional knowledge of the English grammatical system sufficient to help them use English competently in their own continuing studies.
- c) To possess a broad knowledge of teaching techniques, approaches and methods to teaching as a second language as well as the critical ability to do the same.

However, in the actual classroom observation, none of the two lecturers observed made reference to the aims and/or objectives of the topics they were teaching, which does not seem to model to the students the importance of communicating lesson objectives to the learners. In that way, learners can relate the content of the lesson to the objectives of the topic being treated in a particular lesson.

3.3.2 *First Set of English Lessons by Mrs. C*

An English Paragraph: The sub topics: “organizing a paragraph” and “constructing a paragraph” were taught by Mrs. C. The first focused on organizing a paragraph from a written passage while the second was on actually constructing a paragraph. The first lesson required students to read a passage from a handout and then to arrange sentences so that these formed a paragraph. Still following the same style, whereby students arrange sentences to form a paragraph, the lecturer asked the student teachers to continue organizing paragraphs but this time using the sentences that she had written on the chalkboard herself. This way she appeared to change the strategy of reading from the handouts to using a chalkboard. However, this change was merely a variation, which did not seem to challenge students even by asking them to actually formulate sentences themselves and form a paragraph. The second lesson on an English paragraph required student teachers to focus on linking paragraphs so that a particular paragraph would convey a certain message.

The greater part of these lessons involved the students in some form of activity, including giving them an opportunity to report to the entire class the outcome of their individual activity. In the first instance for example, the student teachers individually read the passage and later on shared their work by reading it aloud to the rest of the class. The student teachers’ involvement was supplemented by the tutor who sometimes gave them more work by writing sentences on the chalkboard for them to connect in order to build new paragraphs. Mrs. C tended to explain to the class concepts that she thought needed to be explained. For example she gave a brief description of how a paragraph is made up: “*See, the paragraph is made up of sentences and each sentence has a meaning. For a collection of sentences to form a paragraph, the meaning should be linked*”. She also sometimes gave hints on constructing a good paragraph.

The two lessons were obviously on upgrading the student teachers, content knowledge and there was little attempt if any to challenge students’ even by way of finding out how much they know about constructing paragraphs. This is one topic that is surely treated at secondary school level and it might have been more a challenge to the students to find out what they actually learned at secondary school. Better still, they could have been challenged to critique how the topic is taught at secondary school and how they would teach it themselves, particularly at the primary school level. Instead of challenging students, the lessons were more about drilling them on connecting and/or linking sentences as they went about constructing paragraphs. Thus, Mrs. C appeared to be more concerned about students constructing coherent paragraphs as opposed to, for example, discussing what is entailed in constructing a good paragraph.

The two lessons showed how the content knowledge gets delivered in Mrs. C's classroom. The students were given individual and group exercises to complete, they were asked questions and the lecturer explained some concepts. Studying the type of questions that were posed by the tutor, we are inclined to conclude that most of them did not challenge the student teachers that much. Questions such as: "*so what is the qualification of the main sentence? How many paragraphs do you have? And so what is the qualification of the statement?*" are possibly questions of a type that they came across during their high school education.

Additionally, the practices of having student teachers read a passage in chorus, as was the case in the first lesson, or of writing sentences on the chalkboard for student teachers to arrange into a paragraph, tend to perpetuate primary and secondary school reading patterns of involving students. Student teachers were not given the opportunity to challenge these very practices. Providing them with an opportunity to challenge such practices would be one way of developing in the teacher education students some critical analysis skills of the way primary school students are taught.

Moreover, the use of teaching and learning materials such as a chalkboard, are not new to the student teachers, especially the way they were used. The use of the chalkboard was not different from the way the handout was used. Perhaps students should have been given poorly constructed paragraphs to actually critique by looking at how they were, linked. Instead, they were asked to share with the entire class the sentences they had constructed themselves and it is not clear how this particular activity was going to contribute to their content and pedagogic content knowledge.

Mrs. C demonstrated two strategies of concluding a lesson. These were asking a question on what had been taught and giving a summary of the lesson. In the first lesson she wound up by asking questions of the type that are indicative of the method of teaching she used. For example, she asked students to read aloud paragraphs they constructed to the class and then gave them homework in preparation for the next lesson. In the second lesson, she concluded the lesson by giving highlights on the focus of the lesson: "*Sentences should be connected and the meaning linked. Without that, it is not a paragraph*".

3.3.3 *Second Set of Lessons by Mrs. D*

Mrs. D. taught the second group of lessons. She covered three topics and these were substitution tables, teaching English reading lesson and teaching of L1 and L2.

Substitution Tables This lesson focused on helping student teachers learn the concept: substitution tables. In her introductory remarks the tutor clearly explained what the lesson was all about, saying it was going to be on how substitution tables are constructed and why they are taught in schools. As a result, the tutor tended to explain extensively the purpose of substitution tables and at the same time threw in what they were to bear in mind when teaching this topic. Moving slightly from this teacher-centred style, Mrs. D

involved student teachers by way of requiring them to answer the questions she posed. The interaction between Mrs. D and her students seemed to be through discussion, responding to questions, writing, reading and constructing tables. Judging from what actually transpired in Mrs. D's class, the lesson aimed at upgrading the student teachers' content knowledge although she tended to mix this aspect with pedagogic content knowledge.

That is, there was a tendency to make occasional references to teaching topics of this nature to primary school pupils, emphasising group work as the most suitable method of teaching this particular topic. However, she did not take advantage of the very method she seemed to be promoting, such as actually demonstrating how this could be achieved in practice. Moreover, mixing the two aspects could in itself be very confusing in that students might not easily separate learning how to construct substitution tables and learning how they were going to teach the same to their own students, especially when done haphazardly. Additionally, asking student teachers to imagine the primary school students and the primary school context, without much connection to the lesson, could contribute to some form of confusion in the students' mind. Had the lesson been premised on how to teach substitution tables to primary school pupils, perhaps it would have been more meaningful to the student teachers.

On the issue of checking students' understanding of the content of the lesson, Mrs. D tended to ask occasional questions some of which seemed to have been intended to remind them of a primary school classroom setting. For checking the students' understanding, for example, she asked them to construct substitution tables using a question or sentences she had constructed herself. Other questions had to do with the primary school pupils. By asking students to continue with the unfinished work in preparation for the next class, she encouraged them in a way to be thinking about the topic as they prepared for the next lesson.

Methods of Teaching Reading The lesson on methods of teaching a reading lesson tended to be more on explaining to students a variety of methods that were suitable for teaching "reading" at the primary school level. Specifically, they included the alphabet, the look and say, the sentence, the phonic and the combined methods. By its nature, this lesson could have been practical, allowing students, for example, to role-play the use of some of these methods. On the contrary, the lesson that could have been purely practical was taught theoretically. The lesson focused on the content of the different methods suitable for teaching a reading lesson. Mrs. D basically spent time giving extensive explanations, focusing on the meaning of each of the methods. Additionally, she gave examples as she described what each method entailed. She also suggested a method that she considered to be the best in teaching reading lessons in the primary schools. This proposition, however, was lacking in that the lecturer failed to provide justification for suggesting so. The explanations were combined with writing on the chalkboard while the student teachers took notes.

Typically, she invited students to ask questions on an area that might not have been clear to them. The idea of inviting questions might have been aimed at checking the extent to

which students actually followed and/or understood the content of the lesson. However, it failed to attract questions from the students. Upon realizing that students did not have any questions and perhaps wanting to check whether or not learning had taken place, she asked questions herself. The type of the questions asked, (typical recall type) tended to encourage students to give back what had actually transpired in the lesson.

In winding up the lesson she threw in ideas such as use of songs in teaching reading, which in her view would contribute to teaching appropriate pronunciation. She added that giving primary school students exercises tends to promote their thinking, something that was not demonstrated in the teaching of this particular lesson. In a sense, the tutor was merely preaching what she felt was appropriate for teaching at the primary school without modeling to the student teachers the extent to which this was feasible.

Teaching of First (L1) and the Second Language (L2) The third English lesson taught by Mrs. D. appeared to be a follow-up of what the student teachers started working on as an assignment. This is one lesson whereby students' group activity emanated from what had been done as homework. Of all the English lessons observed this is the only case where students came to class prepared for the next lesson. The idea of allowing them to discuss the assignment and to discuss teaching strategies as provided in the handout seemed to benefit from the fact that students had done reading prior to class time. The summaries of the contents of the two handouts would, thus, benefit from the interpretation students made at home.

Mrs. D. tended to move from one group to the other as the students tackled the task assigned to them. Her tendency to move from one group to another and spending roughly 5 minutes with each group seemed to have been aimed at monitoring the group deliberations. In visiting each group she also guided the discussions by asking questions as the groups discussed the task at hand. This was a situation where a lecturer was seen playing a useful role during group discussion. The practice of supervising group discussions and presumably guiding group deliberations is not common in the NTTC classrooms that were observed. Students on their part seemed to have been expected to critically discuss the contents of the two handouts and to then indicate which of the two provided better options for teaching L2.

The lesson showed students interacting among themselves, with the tutor guiding the group work activities. The work emanating from the group work was shared with the entire class, as student teachers were required to put their answers on the chalkboard and in doing so presenting to the class the group contribution. The questions asked after each presentation, mostly by the tutor, fell short of eliciting their understanding of the summaries and/or applicability of their summaries. The type of mistakes made in the presentations given by the students were corrected by Mrs. D. herself and we are inclined to think that in doing so she reduced the opportunity for the students to critique each other.

3.3.4 Summary

Overall it would seem that there is no particular pattern in the way the English lessons get introduced in the classes that were observed. On two occasions, the lessons started with a recap of the previous lesson. On another, it can be assumed that the tutor was attempting to recap for she asked a question which tended to suggest reference to the previous lesson. However, the extent to which the recap achieves the objective of helping student teachers relate the lessons to other topics taught is not clear. The varying ways of introducing lessons on the one hand suggest flexibility and in a way, if properly done, demonstrate that there are numerous ways of doing so. On the other hand, however, since such introductions do not obviously portray a proper way of starting a lesson, they fail to model to the student teachers the very idea of flexibility and using a variety of styles in introducing and/or starting a lesson.

A further analysis of the English lessons observed indicates that to a large extent the knowledge being taught is basically content knowledge. In the majority of cases it is knowledge that students would have come across in their other levels of education. This being the case, one would have expected that the focus of pedagogic knowledge would be of paramount importance at this level of one's education. Moreover, particularly with regard to teaching strategies, there was a tendency to interact with students, give extensive explanations, involve students in activities and to some extent ask questions. None of these activities seemed to relate to the theory that is being promoted in the curriculum as documented. Student teachers for example, were not fully challenged in any of the lessons observed.

Nor did any clear pattern emerge on how to bring a lesson to a proper closure. At times lecturers ended lessons with an assignment while in others a summary of the lesson was provided while in others still, the lesson ended with a message that did not really relate to what transpired during the lesson. For example, the mentioning of songs as one way of helping students learn was not followed up in a way that related the idea to the lesson.

Regarding the use of teaching and learning materials, the use of chalkboard and photocopied materials by the tutors contradicts the use of various textbooks and reference material listed in the documented curriculum. For example, the document lists among others two books, which could have been used in two of the lessons observed. The reference texts by Harmer J. (1983) on the Practice of English Language Teaching and the other by Herbst, (1992), on Second Language Teaching: A Guide for Junior Primary Students and Teaching, were relevant and could have been used or at least referred to for further reading. The classroom observations revealed that handouts and chalkboard were the only types of materials, which tutors and student teachers tended to use in all the observed English classes.

Teaching styles and/or strategies used should, under normal circumstances relate to classroom evaluation. Observing the English lessons it became clear that the extent to

which learning had taken place was checked through asking simple recall questions. On two occasions, students were asked to complete work as homework.

In conclusion therefore, the extent to which the curriculum in action builds and/or puts in practice the documented one in as far as the teaching of English is concerned, there seems to be a contradiction. The methods of teaching used by the two lectures are traditional and do not therefore portray familiarity with the theory of reflective practice advocated for in the preamble to the curriculum as documented. Furthermore, the methods do not take cognizance of the fact that students were being prepared to teach in the primary school level. The casual mention to students what to remember in teaching at the primary school level indicates that one lecturer was conscious of this fact. However, unless demonstrated in practice, it is likely to be meaningless.

3.4 The Case of Educational Foundations

Five lessons covering three topics on the educational foundations course were observed. These were in the areas of teaching and learning materials, early learning specialization and educational research. The first two topics were taught by Mrs. G and the last by Mr. H.

3.4.1 Objectives

The objectives of the lessons observed were found in the course outlines of the curriculum document. For example, Module 6 of the educational foundations course has as one of the objectives: “students will be able to: demonstrate the ability to prepare and use relevant teaching aids effectively”. Module 2 indicates that students “will be able to describe the meaning, nature, and types of educational research methods and demonstrate their understanding of research methods through application and analysis” (National Teacher Training College, p.60 and 62 respectively). One of the lecturers made reference to the objectives and/or modules during her teaching. In a way the lecturer was demonstrating to the students the importance of ensuring that students know about the relevance of the lesson being taught.

3.4.2 Lessons 1 and 2: Teaching and Learning Materials

The two lessons that were observed under this topic were the theory and practical aspects of teaching and learning materials. For the first lesson, the lecturer had distributed two handouts prior to the lesson. In her introduction Mrs. G. referred the students to the two handouts on the topic. It can therefore be expected that the students were familiar with the content of the lesson.

This lesson, which was highly interactive, focused on numerous ways that can be explored for storing teaching and learning materials in typical Lesotho primary school environments. The lesson featured questions posed by Mrs. G. herself. The responses provided by students showed that the content of the lesson or perhaps the primary school

situation was very familiar to them or indeed still very fresh in their minds. Mrs. G asked questions such as: *‘What can we do to protect our teaching aids from damage – think about agents that cause damage such as dampness, heat, direct sunlight, mice, rats etc.* In fact, many of the questions asked directly led students to possible answers. Students too had an opportunity to ask questions on the aspects of the lesson that needed clarity.

However, the activity that followed did not seem to follow directly from the topic of the lesson. There was therefore a discrepancy observed, which seemed to be negligence or lack of systematically relating aspects of the same topic on the part of the lecturer. Specifically, students were asked to sit in groups of five and to construct teaching and learning materials. At the same time the tutor shared with the students a few hints on what to bear in mind in developing materials. That is, the lesson neither focused on the storage of teaching and learning materials nor was there logic in discussing storage prior to constructing materials. Thus, failure to capture specific issues at the relevant time of teaching a particular concept tends to show inconsistency and/or illogical ways of presenting a topic to students.

This lesson, although designed as groupwork, lacked the input and or close supervision by the tutor herself. Instead of guiding the activity by way of observing the group activities, the students were left on their own from after the first 20 minutes of the lesson up to the end of the period. It seemed doubtful that the students would be in a position to relate the construction of materials to suitable storage for each of the different types of teaching and learning materials that they might have constructed. Such a connection calls for the lecturer who is prepared to observe the activity and who, in the end would discuss the product of group work with the purpose of relating it to the storage topic.

Although the kind of knowledge that was being transmitted seemed to be on helping student teachers learn to construct teaching and learning materials themselves, they did not have an opportunity to interact with others about their work. For example, they did not discuss the materials constructed nor did they discuss how and in which lessons they would use those materials. This would have been an opportune moment to allow students and the lecturer to critique the outcome of the work as groups presented their work. This way, assessment would have been a challenge for all students and the lecturer herself.

3.4.3 Lesson 3: Early Learning Specialisation: Home and School Relations

The lesson on home and school relations was the only lesson observed in this MUSTER sub-study in which the tutor not only made reference to the module and objectives of the course, but also elaborated on what was contained in the module. She actually spelt out the objectives of the module as they appear in the documented curriculum. For example, Mrs. G indicated that the objective of the module is to equip the student teachers with ways of handling early primary classes 1-3 learners and that its basic aim is to provide an in-depth understanding of pupils’ personalities in order to enhance their all-round development. It was therefore in this lesson where student teachers actually had the opportunity to relate the lesson to one of the objectives of the course.

At the start of the lesson, it appeared to be student-centred. In the first instance, they were involved by way of inviting them to visualize the first days of primary schooling in order to relate the topic of the day to the real school situation. However, the lecturer tended to elaborate on a number of issues submitted by the students instead of perhaps allowing students to discuss such issues. In doing so, students' knowledge would have been enriched by the type of information that was being discussed. Most importantly, the lecturer would be providing the students with an opportunity to critique each other and in that way help them achieve one of the major goals of the DEP programme, which calls for such strategies in the teaching of the various courses.

In the second instance, the lesson shifted to being teacher-centred. After the student teachers' contributions, which were supplemented by the tutor's input, the lesson moved to the tutor providing extensive explanation on a number of issues. These included researching learners' family backgrounds, the age during which children are admitted into standard 1, relationship between school and home, and parents' expectations. Thus a lesson that could have been mainly student-centred shifted to becoming purely tutor-centred, forcing students to listen more than participate.

The explanations given by Mrs. G benefited from the practical examples she gave. For example, she emphasized playing and singing as possible ways of helping children learn and indicated that they (children) could play out concepts such as division by playing roles of parents and children when sharing things at home. In doing so, she illuminated methods and/or activities that fully engage children and which are by nature child-centred. At some point she referred students to the psychology lesson on motivation that they had sometime in the past and linked this to what they were learning in the lesson. Much as we are inclined to agree that injecting a concept at the point that might help the students see the relevance to what is being taught to what was learned in other lessons, it helps more if the students were asked to discuss the relationship themselves. This would have been one way of assessing the extent to which students remember or are able to link related ideas.

3.4.4 Lesson 4 and 5: Educational Research

The educational research lessons observed were on "choosing a topic of study" and on "literature review". The educational research topic and the objectives for the module, as already pointed out, are from the curriculum document.

The educational research lessons observed tended to be teacher-centred. The one on literature review was more heavily teacher-centred one than the one on selecting a research topic. Typically, the tutor gave extensive explanations on a particular concept. For example the lesson covered the following sub-topics: purpose for reviewing literature, drawing a research proposal, methodology indicating subjects, instruments and procedures, sampling techniques and the meaning of data. This instructional method created a situation whereby students were not only bound to listen but also had to take copious notes at the same time. This was aggravated by the habit of the lecturer to dictate to students what to write on the chalkboard, in few instances where individual student

teachers were instructed to put something on the chalkboard themselves. Most worrying about the extensive explanations was the introduction of too many concepts in one lesson.

This is yet another situation whereby in analysing the lessons observed, we see that a practical lesson is taught theoretically. For example, although one of the lessons observed was meant to be practical, the number of issues the students were supposed to work on were too many. In this particular lesson, students were to come up with a topic, identify a problem statement and then define two variables: dependent and independent variables.

The entire approach and the amount of content covered suggest a highly ambitious style of teaching educational research. The sub-topics covered could be taught adequately over a one-year period. Instilling in students the value of investigation is an aspect of education that could start as early as at the primary school level. However, and perhaps because the lesson was aimed at teaching the content of educational research and not so much how inquiry could be introduced in the primary school, the areas considered to be researchable were targeted at student teachers undertaking research themselves, although related to primary schooling. Topic such as “the effect of free primary education in teaching and learning in the primary schools” and one on “the effectiveness of teacher education curriculum in preparing teachers for inclusion in primary school” have some relevance to primary schooling. However, as already pointed out, none of the topics mentioned seemed to say anything about teaching young children to engage in inquiry themselves. Thus, the educational research lessons observed were not anywhere close to the primary school classroom in which young students could be taught investigation skills. The educational research lessons observed were therefore basically aimed at upgrading students’ content knowledge.

Although most of the teaching was lecturing, there were instances where student teachers had the opportunity to interact. This was particularly true during the lesson in which they discussed research areas and variables. However, like most of his colleagues, the lecturer did not stay to supervise the group discussions. Mr. H therefore, failed to model group work as a skill that student teachers could use in their own classrooms.

Regarding checking student understanding, he tended to ask questions such as “*What do you think methodology means?*” “*What do you mean by methodology?*” Such questions were asked prior to him providing an explanation.

Failure to connect previous lessons with the one being taught was observed during Mr. H’s lesson. For example, the lesson on literature review had ended abruptly because time had run out. However, the next lesson that followed this one started with students being divided into groups to work on identifying a topic and defining a variable. There was no attempt to wind up the previous lesson.

3.4.5 Summary

A picture that emerges from the way lessons were introduced in educational foundations indicates that, to a large extent, reference to the previous lesson or a brief introduction

were the common features of starting a lesson in this course. However, there were some differences observed. In one lesson, introduction appeared more like a business way of going about the class activity. The lecturer started by greeting students and immediately expressing concern that the group was behind others in terms of the content covered and that in order to be at par with other groups the lesson required students taking notes. The pressure here seems to be catching up with others, regardless of the circumstances that might have led to the situation of being behind other groups on the topics covered.

The two education lecturers both had a groupwork activity. Neither lecturer stayed for the practical stages. This was the time for tutors to return to their offices leaving students to either continue with the lesson or also leave without completing the task. This practice is a poor model of what group work entails and the opportunity actually to demonstrate it gets missed.

The use of teaching and learning materials by the educational foundations tutors is subject to a number of questions. For example, as opposed to challenging the students to use as much as possible text and/or reference materials that appear in the curriculum as documented, tutors tended to use handouts and the chalkboard. A typical and rather sad situation was whereby students were reminded that there is a huge collection of relevant materials in the library on a topic that was being taught, yet students were encouraged to take copious notes by the same tutor. Both the prescribed and the reference books, "Doing your research project"(Bell 1992) and "Introduction to research in education" (1990) respectively were available. This situation whereby students are not given the opportunity for independent study or for use of prescribed materials, might be attributed to the transmission mode of teaching in some of the educational foundations lessons.

Finally, in concluding lessons the educational foundation lecturers failed to demonstrate to their student teachers how lessons are brought to a close. As already pointed out, on two occasions students were left on their own up to the end of a lesson. On one occasion the tutor could not conclude the lesson as time had run out while in another a brief summary was given at the end of the lesson. In other words, there is no clear pattern of how lessons are concluded for students to learn from.

3.5 The Case of Mathematics

Five mathematics lessons were observed, one large group lecture and four small group lectures. The large group lecture was of one-hour duration and small groups extended for 2 hours. The large group lecture was taught by Mrs. Q and the four small groups by Mrs. M. The large group lecture was on the teaching of directed numbers and the small group lectures addressed the following topics: the primary school mathematics syllabus, the teaching of subtraction and addition, transformation and construction.

3.5.1 *Aims and Objectives*

The mathematics course consists of twenty (20) modules whose content is clearly spelt out in thirty-six (36) objectives. The modules and objectives appear in two distinct categories in the documented curriculum, namely, subject matter and methods. Twenty-two (22) of the thirty-six objectives cover the subject matter and only fourteen concentrate on the teaching methods. The aim of the mathematics course in all the three years is to stimulate interest in mathematics and to produce teachers who “can create an appropriate learning atmosphere and impart knowledge of subject so pupils ... are aware of different learning/teaching methods ... have sound knowledge of organizing maths lessons ... are familiar with the current school maths syllabus”. All the five lessons, which were observed, were related to the aims and objectives of the course as spelt out in the curriculum document.

The practice of making objectives explicit in class is not common at the college and the five mathematics lessons observed were no exception.

3.5.2 *The Large Group Lecture by Mrs. Q*

The large group lecture was on directed numbers - the adding and subtracting of one-digit numbers. Mrs. Q wanted the students to develop a lesson plan on directed numbers. She started by introducing parts of a lesson plan and wrote the elements of the lesson plan on the chalkboard as follows: subject, topic, class, size, lesson objectives and presentation. Student teachers grumbled upon the mentioning of the words lesson plan - "lesson plan again" implying that they have already been taught how to draw up a lesson plan either by the same lecturer or others in the same or even in another department. In her introduction she wanted students to elaborate on the parts of a lesson plan. She asked questions such as "*What do you think the objective of this lesson should be?*" To which one student responded: "*At the end of the lesson students should be able to add numbers.*"

After the introduction Mrs. Q demonstrated to student teachers how to construct a teaching aid - the Number Line - for teaching directed numbers. In her demonstration she illustrated on the chalkboard and followed the illustration by constructing the Number Line using paper. She then gave the students time to construct their own teaching aid. As they were busy with the activity she was moving around and talking to individual students.

The lesson was conducted in a typical auditorium whose fixed furniture makes students sit in rows with the lecturer in front of the class. As the students were constructing the teaching aid Mrs. Q could only interact with those at the extreme ends of the row and those in the front row.

The lesson's focus was on pedagogic content knowledge, that is, a combination of content on directed numbers and how to teach directed numbers to primary school children. The interaction was minimal and the students tended to respond in chorus to questions asked.

In her introduction Mrs. Q indicated that the lesson plan was for a Standard Seven class - the final year of primary school. The topic of the lesson - addition and subtraction of one-digit numbers - is, however, a Standard One topic in the primary school syllabus. Most of the class time was used to demonstrate construction of a Number Line.

Classroom management was problematic during this lesson. Throughout the one hour of teaching the students streamed in and out of the lecture hall with plates of food in their hands. This class overlapped with the serving of lunch and the students did not want to miss both the lunch and the lesson, which caused unnecessary disruption to Mrs. Q's class. Although she started her class on time, that is 14.00 hrs, after an hour she had not quite finished with her lesson. At 15.00 hrs another lecturer was already in the lecture hall to start her class with the same group of students. Mrs. Q ended her lesson abruptly with students having indicated that they had not understood what the lesson was about. She could not address the students' concern because the other lecturer had started distributing handouts to students and Mrs. Q had to leave the lecture hall unceremoniously.

3.5.3 *Small Group Lectures by Mrs. M.*

All of Mrs. M's lessons were of two-hour duration. Of the four lessons she taught, two focused on subject matter and two on methodology. Her first lesson was on the primary school mathematics syllabus. Students were required to work in groups to study the Standard 1 maths syllabus and decide how many periods were to be allocated to each topic and how many periods of mathematics were to be scheduled per week. These are the instructions the lecturer gave;

In your groups, I want you to look at the scope of the standard 1 syllabus and find out if it is allocated enough time. I would like you to refer to the green book which is just the syllabus without the Teacher's Guide and find out how many hours are scheduled for this class. I want you to break that topic down into the lessons that are required. Tell me what you think you should do in each lesson - if you think the topic should be chopped down into a number of periods you should say so.

After working in their groups for 20 minutes the student teachers were asked to present their group findings. Each group had a spokesperson presenting their deliberations and Mrs. M asked questions for clarification. Discussions were limited to the group representative and the lecturer as exemplified below:

Representative: *For standard 1 pupils, we consider 20 minutes as the maximum length of period. So ten periods are enough in a week.*

Mrs. M: *How do you break that into ten periods?*

Representative: *To teach standard 1 pupils sorting, we give the pupils a homework, say may be we explain for 5 minutes and the remaining time they do whatever they can and makes one period.*

After the presentations by two groups it was time up and the lesson was brought to an abrupt ending with neither summing up nor any evaluation of the lesson.

Addition and subtraction The second of Mrs. M's observed lessons was based on homework she had given to students in a previous class. She had assigned students to prepare a lesson plan on the teaching of addition and subtraction and to develop accompanying teaching/learning materials. The lesson started 30 minutes late because of Mrs. M's late arrival.

Mrs. M instructed the students to present the homework by simulating a primary school classroom and assuming the roles of school inspector, schoolteacher and pupils. Two role-plays were presented by different student teachers: one on the teaching of addition and the other on the teaching of subtraction. Student teachers used improvised teaching materials such as sticks and stones. The following is an extract of one simulation:

Teacher: *Someone to remind us what we were doing yesterday?*
1st pupil: *We were adding and subtracting numbers*
2nd pupil: *We were using 100 and 50*
Teacher: *Now let's have someone come and write and subtract 50 from 100 We subtract a smaller number form a bigger number*
Teacher: *Yesterday I asked you to collect some containers from your places. Where are they? We are going to use them to help us add and subtract*

Mrs. M's lesson ended with her thanking the students for playing the roles of teacher very well but she did not debrief the simulations. She did not bring closure to her lesson and it ended as abruptly as the previous one.

Transformation. The next observation of Mrs. M started with her making reference to the previous lesson and reminding students that the lesson was on transformation. The previous lesson had been on the enlargement of objects and had laid a foundation for the current one. Mrs. M went on to explain the concept of enlargement, emphasizing the change in size. In her delivery of content she clarified the following concepts: reflection, translation, rotation. In her illustrations she emphasized the importance of the centre of enlargement.

She used mathematical instruments and the chalkboard for her illustrations and talked the students through each step of the illustration. The lesson was highly interactive with Mrs. M giving students exercises to work out ratios on the chalkboard and guiding them with questions. Mrs. M reinforced the correct responses by repeating the students' answers as illustrated below:

Mrs. M *C must also move. What is factor A-C?*
Student: *Negative 2, negative 3,*
Mrs. M *It will be negative 2 and negative 3; Now, what will happen when we multiply by 2?*
Student: *Negative 4 and negative 6*

Mrs. M: Negative 4 and negative 6

The lesson proceeded with Mrs. M assigning exercises. Students worked on the task individually while she moved around to see what they were doing. The lesson ended with student teachers being at different levels; some had completed the task, had been checked by the lecturer and had been released. The other group had not finished their task and she advised them to complete their task as homework.

Construction The last lesson of Mrs. M to be observed was on construction. The two-hour lesson started late because she arrived fifteen minutes into the lecture. She introduced the topic by making illustrations on board. The lesson was highly interactive with Mrs. M asking questions while doing illustrations on the chalkboard, and students responding, mostly in chorus.

She demonstrated how to bisect a line and an angle. She gave a detailed explanation of the steps to follow in finding the centre of rotation and the angle of rotation. Besides posing questions and giving explanations, Mrs. M required students to use the chalkboard to demonstrate what they had learned. She also gave them individual work and assisted those who were experiencing problems. At one point she had to provide an explanation to the entire class because of a common problem most students were experiencing. The students who had a better grasp of the concepts were given an opportunity to explain to the others how they had gone about solving the problem.

The lesson ended with Mrs. M emphasizing the importance of ensuring that the lines meet at a particular point of the centre. She then asked students who had finished to leave while those who hadn't finished were asked to remain behind and finish the assignment. The lesson ended 15 minutes early with Mrs. M leaving some students working on the assignment.

3.5.4 Summary

Both lecturers who were observed in the teaching of mathematics involved students in their learning. They used various strategies to ensure that student learning takes place. The use of questions, demonstrations and practice was very effective in promoting students' involvement. Demonstration is particularly a potent strategy in large classes and Mrs. Q used this strategy successfully in her large group lecture thus modeling to prospective primary school teachers how learning can be promoted in big primary school classes. Classroom management in Mrs. Q's class was very poor, with students moving in and out throughout the lesson. The disruption did not provide a conducive learning environment. It is not surprising that at the end of the lesson some students did not know what the lesson was about. Mrs. M did not model good time management skills. She arrived late in several lessons and left early in one instance. Her late coming led to an abrupt ending of almost all of her observed lessons. Whereas in two lessons the lecturers dealt with the lesson plan, their own lessons were not exemplary in modeling closure.

Although the mathematics course, as presented in the documented curriculum is biased toward subject matter - fourteen modules out of twenty, and twenty-two objectives out of

thirty-six - the lessons which were observed were balanced between subject matter and methodology. The large group was an integration of the two, focusing on pedagogic content knowledge, and the four small groups were divided equally into subject matter and methodology. Both lecturers presented mathematics as a practical subject, and even the subject matter topics emphasized the “knowing how” instead of the “knowing that” (Eraut, 1994).

The most commonly used teaching/learning materials were the chalkboard and the mathematical instruments. In more than one situation, however, the lecturers asked students to improvise. In the large group lecture paper was used to construct a teaching aid and in one small group lecture students had to bring to class teaching/learning materials they had constructed themselves. This is another way of communicating the practical nature of mathematics at this level and the lecturers acted as good models for driving this point across. Textbooks and handouts were not used in the observed lessons.

Students' assessment was carried out throughout the lessons and homework assignments were also given as part of the assessment. After every demonstration students were given an opportunity to practise what they had learnt by either using the chalkboard themselves or engaging in individual exercises. The lecturers went round to check individual student's work and assessed their understanding of the concepts, and where necessary they gave additional clarification.

The observed lecturers used a variety of teaching styles, tilted more towards student-centred methodologies. Some of the teaching styles which were employed were demonstration, group work, simulations, and role-play, questioning technique and individual work. Most of the teaching styles were appropriate for facilitating the learning process. In one of the lessons students were required to analyze the primary school syllabus and relate the activity to the school situation as they knew it. In their task of analyzing the Standard 1 mathematics syllabus students engaged in interesting discussions. Issues such as *"you have to think about a learner - some are slow learners and standard 1 pupils are young and likely to forget"* were comments that came from the student teachers themselves. This reminder came constantly from lecturers and it seems to have successfully engendered the required awareness among the prospective teachers. However the opportunity for learning which could have been obtained from discussing the role-play was missed. The lecturer did not debrief the students' role-plays and the lesson did not, therefore, promote the learning that was expected. The questioning technique provided an interactive environment between the students and the lecturers although the tendency for students was to answer in chorus, a practice which the lecturers discouraged as can be seen in Mrs. Q's remark: *"I won't listen to your music. I expect you to respond individually - you must raise up your hands."*

The content which was, presented in the entire five lessons links very well with the primary school syllabus and the teaching at this level. Although the linkage is strong between the observed lessons and the primary school syllabus some worrying observations were made.

Mrs. Q spent too much time demonstrating the construction of the Number Line, firstly on the chalkboard and then using paper. The teaching aid is simple and should not have used too much time. The large group is meant to introduce a topic to the entire class and engaging the class in the construction of a teaching aid seems inappropriate. However, looking at this classroom practice from a different perspective, especially in the context of primary school classrooms for which Mrs. Q could be preparing student teachers, the activity might be regarded as indicating creativity on her part.

The lesson that Mrs. Q selected for the lesson plan on directed numbers is a Standard One topic although she used it for a Standard Seven. One of the major objectives of the maths course is to enable students to read the primary syllabus and to relate topics to the relevant standard. Failure by the lecturer to make this relationship sends a wrong message to prospective teachers - that a teacher is at liberty to teach any topic to any class. It also sends a wrong message about the application of learning theory to subject content and creates an undesirable disjunction between foundation courses and curriculum studies courses.

3.6 The Case Of Science

Four Science lessons were observed, three were conducted by Mr. S and one by Mr. L. All lessons by Mr. S were on theory and the one by Mr. L was a practical. The science course is organized into Biology, Chemistry, Physics and Methodology in the curriculum document and all the lessons which were observed were on Physics. Mr. S's lessons were on Energy and Work while the practical by Mr. L was on Electricity.

3.6.1 Aims and objectives

The science course aims at enabling the students teachers to

develop science concepts, scientific skills and a positive attitude towards Science
... acquire and apply contemporary methods of teaching science to primary school pupils
... appreciate application of science in everyday life situations.

Of the twenty modules, which make up the course, fifteen are devoted to subject matter and only five to methodology. The objectives are delineated by discipline and there is no attempt at integrating the three disciplines of science nor the methodology into the subject matter. The focus of the course is clearly on subject matter mastery as spelt out in the course aims for Year 1

[It is] meant to provide student teachers with a broad introduction to the three areas of Science - biology, Chemistry and Physics ... prepare them for in-depth treatment of the subject matter in Part 2 and 3.

Indeed the ratio of subject matter objectives to methodology ones are within the spirit of this course rationale. Of the 56 objectives in the science course, 40 are subject matter

objectives and only 16 are related to methodology. It is no surprise, therefore, that all the four lessons that were observed focused on the subject matter. All the lessons were found to relate directly to the objectives as spelt out in the documented curriculum.

3.6.2 Lessons By Mr. S

Mr. S was observed teaching three lessons, all of them on energy. He started the first lesson by giving a summary of potential energy. He went on to distinguish between potential and kinetic energy and gave many examples to clarify the concepts. As he did so, he made copious illustrations on the chalkboard as indicated in the example:

When the body reaches down here (point to the illustration on the chalkboard) at this point here, this one is doing work and that work will be equal to mgh (He writes $W=mgh$)

The lesson was interactive, with the lecturer asking questions and students responding in turn. Although the lecturer provided a lot of examples from everyday experience to clarify abstract concepts, at times his explanations lacked clarity and sharpness in the subject as exemplified below:

Student: *Sir, why does a ball bounce back when it falls? For instance, if a tennis ball hits the ground it goes up again and so on until it rests on the ground.*

After some long interaction between students and lecturer on this question, the lecturer intervenes thus

The easiest way to explain this is by the conservation law, momentum conservation which we have done. I find it extremely hard to explain this so that you can see it in energy terms.

The student is still confused.

Student: *The problem now is that the inflated ball is able to bounce whereas the deflated one does not bounce back*

Lecturer: *No, no. The deflated ball will not bounce back because the force or the energy of the ground does not have enough energy to make it more, but the inflated [one] is different in that being elastic it picks up whatever amount of force or energy from the ground to move...*

Mr. S spent the last five minutes of the lesson highlighting what had been covered and summing up the lesson.

His second lesson was on “Work”. He introduced the lesson by referring to the previous lesson on work, reminding students about the workings of a dynamo and how energy transformation and transfer occur in a steam engine. He developed the lesson by talking about different forms of energy and the law of conservation of energy. He referred

students to a handout he had prepared and provided examples to clarify concepts and also used the illustrations provided in the textbook. He ended the lesson by summarizing the content of the lesson.

In the third lesson Mr. S used the chalkboard and a handout to present the lesson whose focus was on renewable and non-renewable sources of energy. He provided students with many familiar examples, such as pushing of the car and pushing a book across the table to explain the concept of conservation of energy. He also gave students exercises to work out. There was a lot of interaction between the lecturer and students, with students also posing question to the lecturer where things were not clear. The class exercises were followed by discussions and a summary by the lecturer.

Although there was lively interaction between the lecturer and students, the explanations provided by Mr. S were misleading in some instances as exemplified by the definition below:

The third one which is very critical in defining work in Physics is not very familiar in everyday life is that the motion must be along the direction of the applied force.... This conception of “work” is misleading because a force can be applied on an object but with resultant motion at an angle to that of the applied force.

The lecturer also confused the physical state of getting tired and work as defined in Physics, as depicted by his question:

Why do you think your hands feels tired even though you are not doing any work?

Following on the definition of work, Mr. S introduced the students to the unit commonly used for work, the “Joule”. He drew a relationship between energy and work by referring to food which animals consume. This led him to discuss the transformation of energy from one form to the other, emphasizing that energy never gets destroyed. Mr. S, as usual, brought his lesson to an end by summing up the day's lesson and telling them about the next.

So in a nutshell, in the process of doing work energy can be transformed or converted to different forms ... as we saw in the two examples of the wheelbarrow and the dynamo. In the next class we'll look at one other example of energy transformation in the steam engine.

3.6.3 Practical by Mr. L

The fourth science lesson to be observed was a laboratory practical on electricity, which was conducted by Mr. L. The lecturer was twenty minutes late for this one-hour practical. He drew a diagram of the circuit on the chalkboard and notified the students that the same diagram was in their handout. Mr. L instructed the students to work in groups to answer

questions on the circuit. Although this was a practical class there were no concrete materials. Using the diagram in the handout students had to respond to questions like:

- What happens to the brightness of the lamp if one cell is added and connected to point A?
- What happens to lamp X when the switch is open?
- If you were to put a switch to control lamp X and Y where would you put it?

After slightly more than five minutes of having started the lesson, the lecturer left the room with the message that *"if there are no questions carry on in your groups."*

The students proceeded to work in their groups to respond to the questions. Some students began to leave class fifteen minutes before the end of class.

3.6.4 Summary

The objectives which focus on the subject matter dominate the documented curriculum of the science course and this has been borne out in the lessons observed. All the lessons were subject matter-oriented and designed to provide student teachers with a broad introduction to physics as detailed in the course rationale. Mr. S's lessons covered five objectives and Mr. L's one objective of the Physics area. To this extent the lecturers were teaching what is in the documented curriculum.

Mr. S's lessons were structured with a beginning, a middle and an end. His beginnings were characterized by linking the current lesson to the previous one, and the endings by summarizing, and at times indicating what the next lesson would be about. The middle part of the lesson consisted of the presentation of concepts, student/lecturer interactions and class exercises by students. In this way Mr. S modelled effective lesson presentation to the prospective teachers. Mr. L's lesson on the other hand started late and was not well prepared for. He presented a practical lesson without concrete materials for students to manipulate and he did not provide guidance to students as they engaged in an assignment he had given. The material he presented to a one-hour class was very inadequate as it was completed in less than thirty minutes. This particular lesson did not model good practice for prospective teachers especially with regard to time management.

The knowledge, which was presented in the Science lessons of both lecturers, is what Shulman refers to as "knowing that". As already indicated this is what is emphasized in the rationale of this course. Of concern however are the misconceptions that were identified in Mr.S's lessons. At one point the lecturer spoke of "applied" force and indicated that work done by the force is always zero if it is not directed along the motion of the object on which work is done. One got an impression that the lecturer was not aware that in physics an object could be in motion while there is no work done on it whatsoever. The lecturer's reference to the definition of work as "mathematical" in his statement "The mathematical definition of work is that the amount of work done by a force is given by the product of the force and the distance moved" does not really help the students to grasp the physical concept. It is not about being mathematical but rather

about quantifying the concept of work, that is, the “how much” aspect of work done by a force.

This also has a bearing on the vocabulary used to convey the concepts. This points to the dilemma faced by a science lecturer regarding the avoidance of technical terms and resorting, instead, to readily understood language which runs the risk of compromising concept acquisition. Hopefully the instructors' ability to provide copious examples from everyday experience should help the students to grasp the concepts independently.

Mr. L by failing to provide relevant materials in the practical on electricity lost an opportunity of engaging students in “knowing how”. Both lecturers used the chalkboard and handouts as teaching/learning resources. The chalkboard was used to illustrate a point to the whole class. Handouts were used for class activity and as reference/study materials. Handouts are extracted from textbooks and do not have the lecturer's input. The use of the handout to conduct a practical by Mr. L was very inappropriate. Judging from the questions the students were supposed to answer, the handout had to be accompanied by concrete materials, namely batteries, bulbs and wire to facilitate meaningful learning.

Lecturer S used a variety of ways to assess students' learning. He asked questions, which students had to respond to verbally and he presented them with class exercises which he checked during the lesson. There was no assessment in Mr. L's lesson as he left the students to work on their own. Because he was in class for less than ten minutes, Mr. L's teaching style could not be assessed. The concept of individual study is applied wrongly by many lectures. It will not be a surprise if Mr. L claims that he was using this strategy in this particular lesson.

Mr. S used the questioning technique as his predominant style of teaching. His questions covered the different levels of Bloom's taxonomy, from simple recall to application. For example he asked:

What happens when we burn coal?

What does the spring do?

What effect does it have on the work done?

Now think about the situation where you are carrying a bag of groceries .. does force work as you move from Shoprite to the Bus stop?

Sometimes he asked questions that called for chorus responses on the part of students. He also invited students to ask questions, a practice which seemed to be very familiar and which students were very comfortable with as seen from the number of questions they posed. He used the expository approach to present the concepts. He went into a lot of detailed explanation to drive a concept home and he used many familiar examples in the process. He followed his presentation with class exercises, at the end of which, sometimes, there would be group discussions. For example, students were given an exercise to complete in ten minutes

This is a ten minute assignment and you are free to discuss it with a person sitting next to you - take ten minutes.

The idea of discussing with those sitting next to them introduces small group work as a method of teaching. When he used a dynamo to explain the concept of energy transformation he was employing the demonstration style. Mr. S was quite comfortable to move from one teaching style to the other.

Neither lecturers made reference to primary school teaching or to the primary school syllabus in their lessons. This is so even when the topics of their lessons are taught at the primary school level. The artificial separation of the subject matter and the methodology of teaching science in the documented curriculum goes against the approach which is advocated for the teaching of science in Lesotho primary school as presented in the primary science syllabus. This college/school practice disjunction can only be addressed if all stakeholders in teacher education, especially curriculum developers and teacher educators, collaborate in teacher preparation.

CHAPTER 4

DISCUSSION OF THE FINDINGS

Central to the criticism of primary teacher education programmes in several evaluation studies, especially the Burke et al., (1994) study which led to the introduction of the DEP programme, was the teaching and learning processes in the College. Indeed the rationale of the DEP programme was meant to address the problems that were identified in the college's teaching and learning processes. Whereas the curriculum document is explicit that "the programme will be built on the principles of depth, breadth, and coherence" and "In its delivery and its content the programme will provide opportunities for personal study and reflection as well as dialogue and debate on a range of educational issues", the findings of this particular study indicate that a lot still has to be done to acquire a coherent curriculum strategy at the college. The key question of this sub-study "How does the curriculum as delivered compare with the curriculum as set out in the documents?" is, in fact, a loud call for coherence.

The disjunction which was identified in the documented curriculum as highlighted in the "Curriculum as Documented" sub-study (Lefoka and Stuart 2001) indicates that the discrepancy between the curriculum as delivered and the curriculum as documented is to be expected. Because the course aims do not derive from programme ones and because of the dissonance resulting from the fact that the two sets are derived from different strands of thinking, that is, progressive and traditional strands (Stuart and Kunje, 2000), the enactment of the curriculum can satisfy only one set and not the other.

According to the curriculum document (National Teacher Training College 1997:10) "the personal and professional aims of the programme shall be pursued concurrently" and "throughout the programme emphasis shall be placed on professional education. General and particular methodologies shall feature on a continuous, concurrent and integrated basis." Within the same document the individual courses are set out along separate subject-matter and methodology lines. Compartmentalization between subjects still persists. The curriculum as delivered has been found to be in tune with only the subject-specific courses section of the curriculum as set out in the document. The case studies were analyzed on this basis and the delivery of the curriculum was compared with the course aims, objectives, content, etc as presented in the curriculum document. The extent to which the curriculum as delivered compares with the rationale, aim and objectives of curriculum as set out in the documents is the focus of this discussion.

4.1 Aims and Objectives

The curriculum of the DEP programme aims at providing Lesotho schools with well rounded and well-grounded teachers in the theory and practice of teaching, who will be

able to tackle the challenges of a typical local classroom. The extent to which this noble goal will be met depends, by and large, on what takes place at NTTC in the process of teacher preparation.

The fundamental difference between the DEP programme and the programmes it has replaced is the constructivist and reflective discourse that permeates the DEP programme rationale and aims. But, as already indicated, the lecturers in their classes pursue the aims and objectives as provided in the course section of the curriculum document only. Because these are not derived from the programme rationale and goals, most of the lecturers observed do not pursue the personal and professional aims concurrently. Most of the observed lessons were devoid of professional education and the integration of methodologies.

Reflective practice is conspicuously absent from all the observed lessons for the simple reasons that it is not reflected in the course aims and objectives. This omission is regrettable and is indicative of an organization that would rather embrace what Stoll and Fink (1996:86) refer to as a “sinking school” culture instead of embracing change.

4.2 Content

The delivered curriculum, except in a few instances, is very academic and content-driven. The designated ratio of 70:30 for content and teaching methods within each subject course makes a mockery of the entire curriculum review process in primary teacher education. Central to the review process was the raising of the entry requirement into the DEP so that less time would be spent on subject content. The 70:30 ratio, which was referred to earlier, questions the seriousness of the college in improving primary teacher education in Lesotho. We acknowledge the value of a sound knowledge base in a particular subject if it leads to the growth of the professional knowledge base. However, the approach of presenting content as a commodity excludes the practical know-how, which the prospective teachers so require for their professional work.

The way the DEP curriculum is designed expects that the NTTC lecturers will be conscious of the fact that primary school teachers should be grounded in all the subjects that they are going to teach. It also expects that they will be helped to see the relationship between all the many subjects that they will teach at the primary school level. Most importantly, it expects that lectures will make an effort to help student teachers through the programme as a cohesive whole. The observation that each lecturer is an island in his/her class, with no co-operation with others will not give student teachers effective ways of handling the many subjects that they are expected to teach.

Students' experiences are also not tapped in NTTC classrooms although we know that student teachers bring with them recollections which may limit, direct, and support their current thinking (Russell and Korthagen, 1995). The beliefs that students bring about teaching tend to be more congruent with their past experiences than the ideas which the lecturers ask them to consider. The value of using students' experiences has been

highlighted in the programme rationale and its omission in the teaching/learning process in NTTC classrooms is an indication that one of the major tenets of the new programme is being undermined at course level.

4.3 Pedagogy

Teaching and learning strategies varied between lecturers and even between lessons given by one lecturer. The underlying model appears to be transmission-oriented in that there is quite a lot of lecturing and presentation by the lecturer. Although students were often invited to participate, through question-and-answer methods, much of this appears superficial, in that lecturers are asking closed or restricted questions. This is very much similar to the findings of the study “Teaching and learning in Lesotho primary school classrooms” (Chabane et al., 1989). It involves teachers asking questions, students answering and the teacher expanding or explaining further the point being discussed. There are however some episodes of real interactive dialogue where students ask questions or where lecturers probe and explore students understanding, or where students even challenge lecturers. Examples were found in some mathematics, science and educational foundations lessons. Interactive dialogue took place with individuals mainly during monitoring of class work. The lectures on research were perhaps closest to tertiary teaching, but were poor examples of it, as far too much was covered without giving time for assimilation through practice.

Thus, the limited pedagogical repertoire which is common in our primary schools seems to be at least partly a result of what is happening at the College, and there is little possibility that the student teachers will develop more individualized teaching styles using a wider variety of methods. The class sizes whereby the largest was 32 were potentially conducive to methods of teaching other than lecturing. Sadly, there was little sign of teaching through or for problem-solving approaches, or of encouraging reflection, as set out in the programme general aims. Instead, students appeared to be still dependent on the lecturers, as they were not being taught to learn independently.

The constructivist and reflective stance, which is recommended for the DEP programme, requires a shift from traditional modes of curriculum delivery. The new programme calls for “opportunities for personal study and reflection as well as dialogue and debate on a range of educational issues.” Unfortunately this is not a common feature in NTTC lecture rooms. The focus of most of the observed lessons was on knowledge transmission rather than on promoting reflection and critical enquiry. Although a variety of teaching styles were observed in NTTC classrooms the expository style was the most predominant.

Almost all the information comes from the lecturers. When one considers the congested schedules which students have to follow one can understand that student teachers are bombarded with information from one lecturer to another and from one subject to another (Ntoi & Lefoka, 2002:280). Modelling of a dialogical relationship between theory and practice as well as debates on educational issues were almost non-existent. Real interactive dialogue of lecturer/student and student/student was rare because of the type

of questions which were posed. Time management seemed to be a problem for most lecturers - coming late to class was quite common, and as a result some lecturers rushed through lessons and were abrupt in ending them. In this regard the lecturers failed to model good practice in a very critical aspect of teacher preparation, the lesson plan. There was poor closure of lessons generally, except for one science lecturer who gave useful summaries.

The statements in the curriculum document that "throughout the programme emphasis shall be placed on professional education" and that "General and particular methodologies shall feature on ... an integrated basis" were found not to be true of the observed lessons. As already indicated content and methodology are portrayed as separate in the curriculum document and are treated as such in the classroom. This is regrettable because,

the relationship between theory and practice can significantly influence understanding of the personal learning process, at every stage in one's development of the professional knowledge of teaching" (Eraut 1994:159)

This separate treatment of subject content and methodology also undermines the method of teaching proposed in the primary school syllabus. For instance the primary school syllabus advocate a process approach in the teaching of primary science but the college lecturers do not model this approach to the prospective teachers.

4.4 Teaching and Learning materials

Regarding teaching and learning materials, lecturers used as their main resource chalkboard and handouts. The students relied solely on handouts, which take the form of photocopied text or teacher-prepared notes. The practice of "spoon-feeding" which Burke and Sugrue (1994) identified at the college still persists. The DEP Curriculum Document which in some ways calls for an inquiry-oriented type of learning can hardly take place when the message given is that knowledge comes from books or from the lecturer. This is yet another situation which promotes dependency on the lecturer.

4.5 Linking with the primary syllabus and primary teaching

There was an attempt by some lecturers to link their lessons with the happenings of primary schools, especially the lecturers of mathematics. It has been mentioned that it is only a fraction of the course syllabus that can allow for this link because 70% of it is devoted to the teaching of subject matter. Indeed, the course section of the documented curriculum is based on a false epistemology which assumes a clear-cut distinction between theory and practice.

This epistemology is in stark contradiction to the programme rationale which states that "the programme will seek to model a dialogical relationship between theory and practice"

and requires that primary school teachers “must be capable of bringing the theoretical and practical aspects ... into productive tension”

The programme rationale places “process knowledge” at the centre of the teacher preparation endeavor and operates from a framework which views professional knowledge holistically, encompassing propositional knowledge, tacit knowledge, process knowledge and know how. The salient feature of the observed lessons, if the course aims had taken their tune from the overall programme rationale and goals, should have contained lively discussion on how the challenges that obtain in Lesotho primary schools can be surmounted. The “theorizing” should focus on strategies for bringing improvement in teaching and learning in primary school classrooms.

4.6 Assessment

The constructivist and reflective approach which is advocated in the DEP programme calls for different methods of assessment than the traditional types that are presented in the course section of the documented curriculum. If according to the curriculum document

the programme will seek to model a dialogical relationship between theory and practice through simulations of actual teaching situations, visits to local schools for observation of practice, and critical and constructive appraisal of current practice and thinking in relation to teaching and learning ... students will be encouraged to develop their own teaching style ... and develop their theoretical understandings of the complexities of classroom life

then assessment ought to be related to this programme requirement. The most common method of assessment is tests and this is indicative of the dominant teaching method, that is, exposition. At classroom level students were assessed through questions, which they responded to verbally and through class exercises.

CHAPTER 5

CONCLUSION

The comparison between the curriculum as delivered and the curriculum as set out in documents can hardly be neatly spelled out because the DEP programme seems to be a "stereo in discord" (Marope, 1997). It is neither coherent nor consistent in its curriculum strategy. In the document itself there is an obvious disjunction between the programme rationale and overall goals on the one hand and the syllabi of the various courses on the other. The lecturers seem to be oblivious of the programme rationale and goals and find comfort in the familiar syllabi requirements that are a perpetuation of the old practices and a hindrance to the improvement of primary teacher education and the primary education system as a whole. The constructivist and reflective model of teacher education, which promotes the image of the teacher as an intellectual, enquirer and change agent, cannot take root at the College unless all stakeholders at the college ensure that the course syllabi "take their tune" from the programme rationale and goals. If this is not done, the dilemmas of the

- (i) academic orientation (theory) versus practical orientation (practice),
- (ii) teacher-centred versus student-centred approaches,
- (iii) ideal of professional teacher versus what is modelled by NTTC lecturer

will not be successfully resolved. "Changes in the DEP depend crucially on the preparedness of the lecturers who are going to implement such changes" (Ntoi & Lefoka 2002:284). Our general impression, based on the lessons which were observed, is that for many lecturers teaching is a job - something that you go and do because you have to. Until they make an on-going commitment to the improvement of their teaching not very much will be accomplished in the improvement of primary teacher education and, more importantly, the improvement of primary education. Of critical importance for the lecturers is that they should practice what they preach. The questions they should ask are "Can I do in my own teaching what I ask of those entering the teaching profession? How can I help my students improve the quality of their learning so that they may improve the quality of learning of those they teach?" (Russell and Korthagen, 1995:98) Without reflecting on what they do as teacher educators and engaging seriously with their professional knowledge landscapes, the college lecturers will find it difficult, if not impossible, to implement the DEP programme as spelt out in the programme rationale. The senior management team at the college is therefore challenged to turn policy pronouncements in the DEP curriculum document into changed classroom practice cognizant of the fact that "Institutional change is an enormous task which requires a concerted effort from all the role players - management and lecturers alike" (Ntoi & Lefoka, 2002:286).

REFERENCES

- Burke A., & Sugrue, C. (1994). *Teaching and Learning at the NTTC*. HEDCO: Dublin
- Chabane, C.M., Lefoka, J.P. & Sebatane, E.M. (1989). *Teaching / Learning Strategies in Leostho Primary School Classroom*. (Unpublished research report)
- Eraut, M., (1994). *Developing Professional Knowledge and Competence*. The Falmer Press: London.
- Lefoka, J.P. & Stuart J.S. (2001). *Analysis of the Curriculum as Documented at the National Teacher Training College (NTTC)*. MUSTER Discussion Paper number 23. Centre for International Education: University of Sussex.
- Marope, PTM & Chapman, DW (1997). *A Handbook of Research on Education – Teachers and teacher Education in Botswana*. Botswana (PTY) LTD: Botswana.
- National Teacher Training College (1997). *Diploma in Education Primary (DEP) National Teacher Training*. Maseru (Unpublished Curriculum Document)
- Ntoi, V.M. & Lefoka, J.P. (2002). NTTC Under the Microscope: Problems of Change in Primary Teacher Education in Lesotho. *International Journal of Educational Development* 22 (pp 275-289).
- Russell, T. & Korthagen F. (1995). *Teachers who teach teachers*. Falmer: London.
- Stuart, J.S. & Kunje, D. (2000). *The Malawi Integrated In-service Teacher Project: An Analysis of the Curriculum and its Delivery in the College*. MUSTER Discussion Paper No. 11, Centre for International Education: University of Sussex Institute of Education
- Stuart J.S., with Kunje D. and Lefoka J.P. (2000) *Careers and Perspectives of Tutors in Teacher Training Colleges: Case Studies of Lesotho and Malawi*, MUSTER Discussion Paper No. 16, Centre for International Education: University of Sussex Institute of Education
- Stoll, & Fink (1995). *Changing our school Linking School Effectiveness and School Improvement*. Open University Press: Buckingham

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