



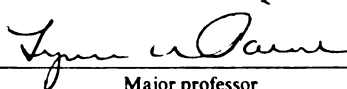
LIBRARY  
Michigan State  
University

This is to certify that the  
dissertation entitled

TRANSFORMING PRESERVICE TEACHER EDUCATION:  
THE INFLUENCE OF BELIEF, EXPERIENCES AND  
STRUCTURES ON TEACHER EDUCATORS' PRACTICE  
IN A NORTHERN PROVINCE OF SOUTH AFRICA  
presented by

Lillian Tendani Muofhe

has been accepted towards fulfillment  
of the requirements for  
Ph.D. \_\_\_\_\_ degree in Curriculum, Teaching, &  
Educational Policy  
Doctor of Philosophy

  
Major professor

Date August 24, 2001

PLACE IN RETURN BOX to remove this checkout from your record.  
 TO AVOID FINES return on or before date due.  
 MAY BE RECALLED with earlier due date if requested.

| DATE DUE            | DATE DUE | DATE DUE |
|---------------------|----------|----------|
| APR 07 2003         |          |          |
| <del>10 28 03</del> |          |          |
| MAY 22 2004         |          |          |
| <del>07 18 04</del> |          |          |
| JAN 10 2005         |          |          |
|                     |          |          |
|                     |          |          |
|                     |          |          |
|                     |          |          |
|                     |          |          |
|                     |          |          |
|                     |          |          |
|                     |          |          |
|                     |          |          |

**TRANSFORMING PRESERVICE TEACHER EDUCATION: THE INFLUENCE OF  
BELIEFS, EXPERIENCES AND STRUCTURES ON TEACHER EDUCATORS'  
PRACTICES IN A NORTHERN PROVINCE OF SOUTH AFRICA**

**By**

**Lillian Tendani Muofhe**

**A DISSERTATION**

**Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of**

**DOCTOR OF PHILOSOPHY**

**DEPARTMENT OF CURRICULUM, TEACHING, AND EDUCATIONAL POLICY**

**2001**



TR

ED

exam

struct

trans

mot

that e

critic

and b

teach

natur

relate

presen

gather

devel

## **ABSTRACT**

### **TRANSFORMING PRESERVICE TEACHER EDUCATION: THE INFLUENCE OF BELIEFS, EXPERIENCES AND STRUCTURES ON TEACHER EDUCATORS' PRACTICE IN A NORTHERN PROVINCE OF SOUTH AFRICA**

By

Lillian Tendani Muofhe

This study investigated the teaching practice of three teacher educators by examining the interaction amongst their beliefs, their experiences, and the institutional structures in which they worked in an attempt to better understand the complexity of transforming practice amidst the current reform agenda in South Africa. This study was motivated by the policy put forth in the White paper on Education (1995) which claimed that every program in all levels of education should encourage, among other things, critical thinking, and the capacities to reason, inquire, weigh evidence, form judgment and be able to communicate. Currently, we do not have many comparative studies on teacher educators, their beliefs and experiences. Further, it is rare to find studies of this nature focusing on institutional structures to examine their effects on practice.

The data was gathered through observation, interviews and analysis of documents related to teacher educators who teach methods courses at Waterfall University's preservice teacher education program. Data analysis was performed as the data was gathered in order to interrogate it and discover emerging themes. Three cases were developed.

educ

educ

mand

back

first o

traditi

knowl

and ta

in the

reform

consid

he con

influe

excell

Three cases were developed demonstrating the manner in which the teacher educators differed in how they understood and implemented reform. The first teacher educator went to a graduate school where the new approaches of teaching being mandated were used. Subsequently, she was able to transform her practice when she went back to teach.

The other two teacher educators were less knowledgeable about the reform. The first of these two teacher educators was able to transform his teaching into a mixture of traditional and new ways of teaching by examining his beliefs, experiences and knowledge of his role as a teacher. The remaining teacher educator resisted the reform and taught his students merely survival skills. He maintained that there was nothing new in the reform that he had not done in his prior teaching. One major omission of the reform, according to this teacher educator, was the fact that it did not take into consideration differing contexts that might affect the implementation of the reform. Thus, he concluded that the reform was not realistic.

Teacher expectation about the institutional structures played a strong role in influencing teacher practice. Three key ideas emerged from the analysis of these cases: excellence in teaching, false clarity in teaching, and empathy in teaching.

Copyright by  
Lillian Tendani Muofhe  
2001

## **DEDICATION**

To Him (God) who is able to do exceedingly abundantly  
Above all that we ask or think...to Him be the Glory.  
To my courageous daughter Mulanga, who fought a good fight  
through prayer for me to finish my studies

gratu

Tha

than

had

think

chall

privi

encou

Dr. D

Assoc

Africa

Fello

Madz

avai

suppo

## **ACKNOWLEDGMENTS**

I would like to express my sincere gratitude to my advisor, Dr. Lynn Paine. I am grateful to her for all her guidance, support and the time she always gave so generously. Thank you for believing in me and nurturing me. Lynn, words cannot express how thankful I am for everything you did for me but still, I am thankful.

Dr. Doug Campbell spent hours going through my drafts and listening to what I had to say about my research. He made time to answer some questions and challenge my thinking. Dr. Diane Holt-Reynolds found meaningful ways to provide support and challenge my thinking. I was not always able to answer all her questions. It was a privilege to work with Dr. David Plank, and I want to thank him for his invaluable encouragement during my doctoral studies.

I benefited from the intellectual support of the Dissertation Support Group led by Dr. Doug Campbell. To every member of the group, thank you.

I am also grateful for the financial support that I received through the American Association of University Women (AAUW); Enerst Oppenheimer Trust Fund in South Africa; Thoman Fellowship; and the Institute for International Education (IIE).

I want to say a special thanks for the support and prayers of the African Christian Fellowship; the Front Line choir at Mount Hope church; and my Christian friends.

Special thanks also go to Manana Shishavele, Mrs. Elsie Madima, Pastor Madzingo, Pastor and Mrs. Ragimani, and Mrs. Munyadziwa Dzebu for their prayers that availed much.

I also want to thank my parents, Johannes and Fridah Rasengane for their moral support and for teaching me to persevere.



the

stu

The last special thanks go to my daughter, Mulanga, for her patience. She was there for me all the time. Her support and encouragement sustained me throughout my studies. I thank God for her boldness during a “rough and stormy season” in our lives.

C.  
R.

Sur

CH.  
ME

CHA  
A TR  
Intro  
Susar

## TABLE OF CONTENTS

|   |     |
|---|-----|
| LIST OF FIGURES .....                                 | xii |
| CHAPTER 1:  |     |
| INTRODUCTION AND THE BACKGROUND OF THE STUDY .....    | 1   |
| A Brief History of South African Education .....      | 4   |
| New Reform in South Africa .....                      | 7   |
| The New Reform and Constructivist Theory .....        | 9   |
| Operational Definitions of Concepts .....             | 10  |
| Research Questions .....                              | 11  |
| Significance of the Study .....                       | 13  |
| The organization of the Dissertation .....            | 14  |
| CHAPTER 2:  |     |
| REVIEW OF PRIOR RELEVANT LITERATURE .....             | 15  |
| Beliefs, Experiences, and Changing Practice .....     | 15  |
| Structures and Practice .....                         | 19  |
| Resources .....                                       | 19  |
| Support .....   | 21  |
| Reward Structure .....                                | 22  |
| Summary .....   | 25  |
| CHAPTER 3:  |     |
| METHODOLOGY AND RESEARCH PROCEDURES .....             | 26  |
| Introduction .....                                    | 26  |
| Site selection .....                                  | 27  |
| The Participants .....                                | 29  |
| Data Collection Methods .....                         | 33  |
| Observation .....                                     | 33  |
| Problems Experienced During Observation .....         | 34  |
| Interviews .....                                      | 36  |
| The Interview Process .....                           | 37  |
| Documents .....                                       | 39  |
| My Role in Data Collection .....                      | 39  |
| Data Analysis .....                                   | 42  |
| Summary of the Chapter .....                          | 43  |
| CHAPTER 4:  |     |
| A TRANSFORMED TEACHER EDUCATOR: A CASE OF SUSAN ..... | 45  |
| Introduction .....                                    | 45  |
| Susan's Experiences as a Student and Teacher .....    | 46  |

Susa

How

Susa

Cour

Criti

Cons

Time

Rew

CHA

SIM

|  |    |
|--|----|
| Susan's Experiences as a Student .....                             | 46 |
| Susan's Experiences as a Teacher.....                              | 49 |
| Susan's Turning Point in Teaching.....                             | 52 |
| Susan's New Practice.....  | 52 |
| How Susan Described her New Practice .....                         | 61 |
| Students Participation in the Learning Situation and               |    |
| Working on their Own .....   | 61 |
| Working in Groups .....  | 63 |
| Independent Thinking and Confidence.....                           | 66 |
| Susan and Students' new Role.....                                  | 67 |
| Course Readings and Its Relationship to the New Reform.....        | 77 |
| Critical Features in Support of Susan's Practice.....              | 79 |
| Conferences and Changing Practice .....                            | 79 |
| Material Resources.....  | 82 |
| Personnel Resources .....  | 84 |
| Constraints in Changing Practice.....                              | 85 |
| Lack of Departmental Support.....                                  | 85 |
| Institutional Support.....   | 86 |
| School of Education Support .....                                  | 87 |
| Time and Changing the Curriculum .....                             | 88 |
| Reward Structure and its Influence on Changing the Curriculum..... | 89 |

## CHAPTER 5

### SIMON: A COMPLEX WAY TO REFORMING TEACHING94

|   |     |
|---|-----|
| Introduction.....   | 94  |
| Simon's Experiences as a Student .....                          | 96  |
| Experiences as a Teacher .....                                  | 99  |
| His Beliefs about Teaching.....                                 | 103 |
| Simon's Description of his Practice.....                        | 105 |
| Helping Students Develop Critical Skills by using Projects..... | 106 |
| Teaching for Understanding through using experiments and        |     |
| Demonstration.....  | 107 |
| Imparting Knowledge and Clarifying Contents.....                | 108 |
| Teaching for Transforming Science Education .....               | 109 |
| Simon in Class .....  | 112 |
| Ideas about Reform .....  | 120 |
| Critical Features in Changing Practice .....                    | 123 |
| Resource Support.....   | 123 |
| Time and Changing Practice.....                                 | 124 |
| Workload.....   | 124 |
| The Length of Time for Teaching Prospective Teachers.....       | 125 |
| Time Spent in Lecture Halls and the Effects of Students'        |     |
| Disturbances.....   | 127 |
| Departmental Support .....                                      | 129 |
| School of Education Support .....                               | 130 |

CH  
KE

CHA  
THE  
AND

|  |     |
|--|-----|
| Institutional Support.....                             | 131 |
| Coming Together of University Faculty .....            | 131 |
| Conferences.....                                       | 131 |
| Rewards and how they Affect Changing of Practice ..... | 132 |
| Summary of the Chapter .....                           | 134 |

## CHAPTER 6

### KENNETH: CONFLICT AND TENSIONS IN CHANGING PRACTICE .136

|   |     |
|---|-----|
| Introduction.....   | 136 |
| What Kenneth Brought to Teaching .....                                | 138 |
| Experiences as a Student.....   | 138 |
| Experiences as a Teacher .....  | 142 |
| Ideas about Students' Learning and Teaching .....                     | 145 |
| Kenneth's Teaching and the Influence of the New teaching .....        | 148 |
| Language of the Students and changing Teaching .....                  | 148 |
| Background, Culture of the Students and Changing the Curriculum ..... | 150 |
| Teaching at Present and the New Curriculum .....                      | 154 |
| Inside Kenneth's Classroom .....                                      | 155 |
| Class Size and Changing Practice.....                                 | 160 |
| Changing Practice and Support.....                                    | 162 |
| Departmental Support .....  | 162 |
| Support from the School of Education.....                             | 163 |
| Institutional Support.....  | 165 |
| Opportunities to Develop Together with Colleagues.....                | 165 |
| Influences of Rewards System in Changing Practice .....               | 168 |
| Time and Changing Practice.....                                       | 170 |
| Conclusion .....  | 171 |

## CHAPTER 7

### THE CHALLENGES OF CHANGING PRACTICES: BELIEFS, EXPERIENCES, AND STRUCTURES AS COMPLICATING FACTORS .....175

|   |     |
|---|-----|
| Review of Findings.....   | 175 |
| Beliefs and Experiences of Teacher Educators and their Practices ...        | 175 |
| Structures and their Influence on Teacher Educators' Practice .....         | 183 |
| How do Beliefs, experiences and Structures Create a Vision of Change? ..... | 185 |
| Visions of Change.....  | 186 |
| Looking for Excellence in Teaching.....                                     | 186 |
| False Clarity of Change in teaching.....                                    | 190 |
| Empathy in Teaching .....   | 193 |



APP  
REC

BIBI

What do these Cases Teach us about Beliefs and Experiences  
and their Impact on teacher Education? .....194  
What do these Cases tell us about the Power of Structures for  
Teacher Education Practice?.....200  
Implications to Practice.....203

APPENDIX  
RECOMMENDATIONS FROM THE PARTICIPANTS.....207  
BIBLIOGRAPHY.....209

## LIST OF FIGURES

Figure 1- Stages in Teaching, Beliefs, experiences and Knowledge.

and

and

from

next

and

inter

facto

an in

and b

pract

hand

and re

my as

relate

direct

that

educat

reason

## **Chapter 1**

### **INTRODUCTION AND THE BACKGROUND OF THE STUDY**

South Africa is going through a process of transforming its educational system, and the new government perceives education to be the key factor in bringing about social, and economic regeneration in the country (SAIRR, 1992). Teacher educators are in the front line of any educational reform and fulfill a very important function in preparing the next generation of teachers (Reynolds, 1995). The present study is aimed at investigating and describing in detail how the practice of teacher educators is influenced by the interplay of beliefs, experiences, and structures, in order to gain insight on how these factors contribute to the transforming of practice. Beliefs often have not been considered an ingredient in the process of change (Darling-Hammond, 1990). Yet Roychoudhury and Kahle (1999) maintain that teacher beliefs are important drivers of classroom practices and we need to understand them to understand changes in practice. On the other hand, curriculum changes will not occur without structures such as institutional support and resources, which are congruent to innovations. Two interrelated ideas made me focus my attention on teacher educators: the belief that the quality of education is directly related to the quality of classroom teachers, and the realization that their quality is directly related to their preparation for teaching (Wisniewski & Ducharme, 1989).

In its White Paper on Education (1995), the new Ministry of Education declared that “the curriculum, teaching methods, and textbooks at all levels in all programs of education and training should encourage independent and critical thought, the capacity to reason, inquire, weigh evidence, form judgment... and be able to communicate” (p.23).

This

in ap

instr

enco

teach

Dra

creat

view

syste

Sou

are c

teach

Char

belie

teach

sever

Teac

pract

struct

indic

and h

This call stems from the fact that textbooks, curriculum, and teacher education for blacks in apartheid South Africa were manipulated for ideological purposes and used as instruments of indoctrination. Official policies on examination and teaching methods encouraged the memorization of large amounts of information and discouraged both teachers and students from developing their own initiative or thinking (White Paper Draft, 1994, p.4; NEPI, 1992). The development of free thinking, originality, and creativity were deliberately suppressed. Educators deposited knowledge into what they viewed as empty minds of the students, an approach that Freire (1972) called the banking system of education. It is during this period of social, political, and educational reform in South Africa that we need to look critically at teacher educators to understand how they are changing their curriculum as stipulated in the White Paper of 1995.

The New Ministry of Education seeks to change the pedagogy and traditions of teaching. It encourages change from a traditional approach to a constructivist approach. Change from one approach of teaching to another requires looking particularly at how beliefs, experiences and structures affect the practice of teacher educators. How can teacher educators who have been subjected to the apartheid system for decades, with severe financial and other disadvantages, be in a position to change their practice? Teacher educators' beliefs and experiences have profound effects on their teaching practice (Schon, 1990). There has been little study that combined a focus on institutional structures and personal beliefs. If teacher educators are to teach in the creative ways indicated in this policy document, it is important to look at their beliefs and experiences and how they interact with structures to influence practice.

the n

insti

men

cour

critic

attac

The

teach

stud

and p

supp

pres

focus

meth

pers

educ

shap

it ter

stud

1980

curr



In South Africa, there is wide dissatisfaction with the courses currently taught at the majority of teacher education institutions, especially black teacher education institutions (NEPI, 1992). The syllabi stress content, and the emphasis falls on the rote memorization of facts. Of all the components found within teacher education, methods courses have perhaps received the sharpest criticisms concerning their value.

Teacher education in South Africa, like in other countries, has been under criticism for a long time. Reformers, practicing and new teachers have joined forces to attack what they see as the weaknesses of teacher education (Stengel and Tom, 1996). The curriculum of teacher education is at the heart of all the criticisms leveled against teacher education, and proposals to change the curriculum continue to emerge. Methods study is at the center of the teacher education enterprise. Whereas psychology, history, and philosophy courses provide background for the act of teaching, and student teaching supplies an opportunity to practice one's skills, it is in methods courses that one presumably learns to teach (Wilson, 1994). In fact, methods course instructors are the focus of this study. A variety of research in the U.S., using both surveys and case methods, has indicated the limited impact of teacher education on prospective teachers' perspectives and beliefs and experiences. Researchers assert that the professional teacher education component is technical and when a technically oriented teacher education is shaped by students and faculty who favor prescriptive knowledge and skill performance, it tends to slant the curriculum for teachers away from intellectually deep and rigorous study (Lanier and Little, 1986; Lortie, 1975; Tabachnick, Popkewitz, & Zeichner, 1979, 1980, National Center for Research on Teacher Education, 1991). The teacher education curriculum is generally regarded as a weak intervention compared with other influences

on l  
mea  
(Lon  
then  
ours  
14).  
do n

educ  
chal  
char  
exar  
educ  
tend  
Yet  
beli

A B

and  
qual  
Educ  
sepa

on learning to teach (Feiman-Nemser, 1983; Feiman-Nemser et al. 1996), and this often means that preservice programs do not challenge the “apprenticeship of observation” (Lortie, 1975). One wonders if the beliefs and experiences of teacher educators themselves are challenged because “ we prepare teachers in the same manner as we, ourselves, were prepare to be teachers, as were the generation before” (Portman, 1993, p. 14). It is therefore important to look at how beliefs, experiences, and structures hinder or do not hinder the transformation of practice in teacher education.

Why is paying attention to teacher education such an important thing? Teacher education is a great place to look when it comes to a reform in teaching. One of the challenges of teacher educators in teaching prospective teachers is change, especially changing the prospective teachers’ thinking and how they should learn. This study examines the interaction of beliefs, experiences and institutional structures in teacher educators’ efforts to change their practice and the practice of future teachers. There is a tendency for people to say that teacher educators are resisting change (Portman, 1993). Yet this assumption is not always accurate. We need to understand teacher educators’ beliefs, experiences, and structures, to know what they are doing and why.

### **A Brief History of South African Education**

Education in South Africa, starting in 1953, was officially divided along racial and ethnic lines, “to reinforce the dominance of white rule by excluding blacks from the quality academic education and technical training”(National Commission on Higher Education, p.29). During the apartheid era, education was used to achieve social separation (Souden et al. 1997, p. 449). The system of apartheid denied many people,

es

to

ed

for

Th

pop

nat

see

don

in w

and

educ

leve

for w

subse

prod

police

Chris

subse

separ

argue

especially blacks, access to opportunities to gain experience, skills, and the information to develop the country. The education for the blacks came to be known as Bantu education. Bantu education was an inferior basic education that trained blacks exclusively for employment in menial, low-wage positions in a racially structured economy.

Therefore, the entire Bantu education system was calculated to produce a black population, which was not only poor but also which would accept its subordination as natural and its low level of education as fitting for racially inferior people. Education was seen as an important mechanism for the reproduction of specific components of white domination, especially the reproduction of the rigidly segregated occupational structure in which blacks were excluded from all job categories except that of unskilled laborer, and the maintenance of ideologies of white superiority (Wolpe, et al. 1991). Bantu education led to policies aimed at the expansion of African education, but only to the levels held to be necessary to meet the labor demands of the white population. Education for whites prepared them to be leaders, and education for blacks prepared them for subservient roles.

The curriculum focus for Bantu education was narrow, with emphasis laid upon producing interpreters, nurses, teachers and messengers (Nkabinde, 1993). Second, the policies aimed at restructuring the content of education in order to inculcate the values of Christian National Education (CNE), thus socializing Africans to accept their subordination within the apartheid system. CNE theory led to separate schools for separate religious and non-religious groups. It rejected any system of state schools and argued for state-supported private schools, “under which system any group of like-

min

(Re

edu

not

and

Eur

and

pro

fund

teac

in m

seen

awa

univ

nat

ins

the

tra

be

in

a

mindful parents may under specific conditions have their special state-aided school” (Rose and Tunmer quoted in Hlatshwayo, 2000). According to CNE policy, black education was to use mother tongue in preparing blacks for their station in life and it was not to be funded at the level of white education. A black child had to be taught English and Afrikaans in such a way that he or she would be able to find his or her way in European communities, carry on simple conversation with Europeans, and follow written and oral instruction (Hlatshwayo, 2000).

While institutions of higher education are traditionally considered places that provide opportunities for thoughtful analysis (Adams, 1971), in South Africa fundamental pedagogics, which was and still is the dominant theoretical approach to teaching in all Black and Afrikaans- speaking universities, has played an important role in maintaining a technical orientation regarding the professional education of teachers. As seen by Lanier and Little (1988) technically oriented teacher education takes teachers away from intellectually deep and rigorous study of the profession. The apartheid -era university, as Adams puts it, “was nothing more than a microscopic representation of the nationalist aspirations, ideal, values. The quality of education, especially methods of instruction, reflects as well as cements the surrounding racial structure” (p.201). As such there was an authoritarian teaching culture in schools, colleges, and universities. The transmission teaching flows from the fundamental pedagogics’ view of a child having to be molded and inculcated into an attitude of obedience and submission toward the instrument of authority. Fundamental Pedagogics offers students “little hope of fostering a discourse offering a language of critique and of possibility” (Enslin, 1984, p.73). Given

this

are

New

which

black

recip

mea

"pre

mov

emp

Sou

teach

idea

Nat

were

educ

terr

Rep

Train

on a

educ



this historical past of teacher education, it is important to look at how teacher educators are changing their practice,

### **New Reform in South Africa**

Until 1994, the education of blacks was thought of as a means to social stability, which was a necessary condition for political order. The limited education offered to blacks was a way for inculcating certain beliefs and attitudes that would make the recipients agreeable to their conditions and make them perform certain jobs specifically meant for them. The new government of South Africa has been forced to challenge the “previously fragmented, inequitable, racially oppressive system of education” and to move to support “the requirements of equality, equity redress, and social and cultural empowerment”(Souden et al, 1997, p.449). The policy is to transform the curriculum in South Africa towards a non-traditional approach, which is quite different from how teaching was in Bantu Education. Students were not encouraged to come up with new ideas or to take control of their learning in the old education system (Understanding the National Qualifications Framework, 1996, p.5). The different education departments were independent of one another, and no common curriculum was followed. Black education was organized in four independent homelands. There were six self-governing territory education departments, and the education for blacks within the boundaries of the Republic of South Africa was under the jurisdiction of the department of Education and Training. This fragmentation has prevented the implementation of a single national policy on any matter.

The new Department of Education shifted the vision and direction of the education system to one where all individuals could learn. This was described as the

Out

cent

(R-A

and

and

with

eco:

and

to le

of e

con:

educ

Afr

race

unde

Nat:

of h:

think

inne

infor

gathe

Outcomes-based Education (OBE). The attraction to OBE is the claim that it is “learner-centered, results-oriented design based on the belief that all individuals can learn” (RASDE, 1997, P. 17). The policy framework promoted in the White Paper on Education and Training (WPET, 1995) is based on a vision that all individuals must have access to and succeed in lifelong education and training. The new Ministry of Education was faced with an education system, which was not functioning for all South Africans. The economic development requires a well-educated citizens equipped with the competencies and skills required by the economy as well as the qualities of flexibility and the capacity to learn (Understanding the National Qualification Framework, 19; Bhengu, 1997).

Introducing the new education system, Professor Bhengu (1997), the then minister of education in South Africa indicated that education “is the key to changing many old commonly held beliefs”. Chisholm et al, (1997) welcomed the change in their analysis of educational equity issues by indicating that “for the first time in the history of South Africa, high quality education will be available for everyone, irrespective of age, gender, race, color, religion, or language” (p. 1). Critical thinking, rational thought, and deeper understanding are the central principles of the new education system. In particular, the National Commission of Higher Education (1996) indicated that a “transformed system of higher education should support the cultures of critical discourse and experimental thinking...to help bring about a free society with a fount of creative thinking and innovative leadership...” (p.70). The old curricula and teaching methods emphasized information learning rather than discovery, problem solving, data analysis, and data gathering.

teach

ach

The

prin

to d

fact

Stud

esse

solv

flex

stud

new

teach

The

und

rece

proc

an a

as a

Cons

In the new reform, the OBE approach to learning is student-centered rather than teacher-centered, and is future oriented and focused on life skills. Emphasis is on achievement of outcomes and application of learning rather than on “covering” materials. The teacher in the OBE approach is a facilitator of learning. The OBE is based on the principle that all learners can achieve well (Pretorious, 1998) if they are given the chance to do so. In the constructivist approach, the accent no longer lies on memorization of facts, but on skills needed in the requirements of the world of work and everyday living. Students are encouraged to play a more active role in the learning. Courses include essential outcomes such as how to think, collect, and organize information, and how to solve problems, communicate, make decisions and work in groups. Teachers are to be flexible in their teaching methods, since the focus in this approach is on whether the student has reached the required standard or outcome. Such reform in teaching requires new understandings and approaches to methods. But we can learn much by examining teacher education method courses and how teacher educators themselves change,

### **The New Reform and Constructivist Theory**

Black and Ammon (1992) viewed constructivist learning as “more concerned with understandings achieved through relevant experience than with accumulated facts received from other”(p. 322). In the constructivist view, the constant feature of the process is that students work in small groups, and the teacher works as a guide and not as an authoritarian with all information. In other words, this theory emphasizes the teacher as a facilitator while the teacher as an expert is diminished (Welsch et al, 1998). Constructivist learning is more concerned with understandings achieved through related

ex

co

me

hyp

Th

con

in a

(Le

assu

exp

exa

expe

**Ope**

insti

mea

wor

abo

refer

and

experience, more imbued with meaning, and more influenced by social and cultural context (Black et al, 1992). Black et al, argue that students construct and discover meaning from their experiences in their environment through forming and testing hypotheses, analyzing data, and integrating new knowledge with previous understanding. This approach puts the student at the center of learning. Students continuously prove, communicate and examine ideas because knowledge that is shared and developed in class in a collaborative manner is greater than knowledge that is constructed by an individual (Leinhardt, 1992). In contrast, the traditional approach of teaching in South Africa assumed that students knew nothing and the teacher had all the information. Therefore, in exploring how the mandated teaching in a constructivist way develops, it is important to examine the assumptions about instruction, and how teacher educators' beliefs, experiences, and institutional structures interact.

### **Operational Definitions of Concepts**

The key concepts that influenced my study are beliefs, experiences, and institutional structures. Beliefs are studied in diverse fields and have resulted in variety of meaning (Pajares, 1992). The educational community has not yet been able to adopt a working definition. According to Pajares (1992) teachers and teacher educators' attitudes about education, that is, schooling, learning, teaching, and students, have been generally referred to as teachers and teacher educators' beliefs (p.316). For this study, I adopt Clark and Peterson's (1986) definition of beliefs:

Beliefs are mental states organized through experiences, predispositioning one to respond in certain ways. Beliefs constitute the individuals' subjective knowledge and could be overlapping with knowledge in the sense that knowledge is the

Bel

arra

199

late

that

pers

and

Res

infl

will

their

and

prac

and

infl



personalized conception of understanding which does not separate the knower from the known.

Beliefs are therefore more influential than knowledge in determining how individuals arrange and define problems and tasks and “are stronger predictors of behavior” (Pajares, 1992, p. 311).

Experiences are important episodes that produce a richly detailed memory which later serves as an inspiration for one’s own teaching practice. Pajares (1992) maintains that such memories can be “from past teachers, literature, or even the media”(p. 311).

Structures will mean resources such as teaching materials, time, finances, personnel; support such as on institutional, departmental, and school of education level; and rewards system.

### **Research Questions**

The purpose of this study is to examine how the practice of teacher educators is influenced by the interplay of beliefs, experiences, and structures. Hopefully, this study will enhance our understanding of the challenges teacher educators face as they change their practice. In this dissertation, I study three teacher educators’ beliefs, experiences, and institutional structures to explore how they are transforming or changing their practice in one university. The following are my main and subsidiary research questions and subsidiary questions designed to guide my analysis.

My major research question was: How is the practice of teacher educators influenced by the interplay of beliefs, experiences, and structures?

Sub  
cha  
edu  
desi

1. Q

The  
exp

2. Q

The  
to fi  
the  
had

Subsidiary question 1: How do beliefs and experiences of teacher educators affect their change in instructional practice? I assumed that beliefs and experiences held by teacher educators do affect the way they change their practice, and to find out about this, I designed these questions to address this question.

### 1. Questions about Beliefs:

- What are the teacher educator's beliefs about student learning?
- What are their beliefs concerning the goals of teaching?
- What are the teacher educator's beliefs about the approaches to teaching?
- What are the teacher educator's beliefs about what teaching should be like?
- How have their beliefs and experiences affected their perception of and approach to the curriculum change?

The following are questions about the experiences of teacher educators and their prior experience at different levels of education:

### 2. Questions on Experience.

- What are the teacher educators' prior experiences with teaching in K12?
- What are their prior experiences with teaching at the university?
- What are their prior experiences with teaching in teacher education and in teacher education curriculum change?

The second set of subsidiary questions deals with the teacher educators' practice in class to find out whether and how they were operationalizing the reform. It was thought that the way teacher educators teach will emanate from the beliefs and experiences they have had and not from the mandated curriculum.

Sub

Sub

Thi

edu

Sig

all

thin

pos

use

sch

Subsidiary Question 2: What are the teacher educators' beliefs about their practice?

- What is the teacher educator's practice?
- What is the teacher educator's perception of his/her instructional practice?
- What is the teacher educator doing in class with students? Why?
- How has the teacher educator's practice changed?

Subsidiary Question 3:

How do institutional structures and organizational context influence the teacher educator's instructional practice?

This question assumes that resources, incentives, and support can influence the teacher educator's practice. To answer this research question, I have developed these questions:

- What are the resources that influence the teacher educators' instructional practice?
- How are resources influencing the teacher educator's practice?
- What are the incentives that influence the teacher educator's practice? How do incentives affect the teacher educator's practice?
- What are the departmental, school of education, and the institutional supports that influence the teacher educator's instructional practice?
- How do these affect the teacher educator's view of curriculum change?
- How are these supports affecting the teacher educator's instructional practice?

### **Significance of the Study**

This type of study is important, not because we can assume from the results how all teacher educators operate, but because it will show us how some teacher educators think about reform. It will also give us a glimpse into the lecture rooms where some possible ways of working out educational issues are taking place. Furthermore, it can be used to challenge the thinking of policy makers, university administrators, and education school faculty in considering how they can assist teacher educators to respond positively

to change. We know very little about how curriculum changes in method course classes, and the effects that structures have or do not have on change. This supports Zeichner (1988, p. 22) and Feiman-Nemser (1983) when they say that teacher education appears to possess “little knowledge of what teacher education courses are currently like.” This study will help us understand and explore change in method courses in teacher education. It is also hoped that through this study, policy makers, university administrators, and schools of education are going to gain insight into how teacher educators who had been working in a very oppressive educational system and are now asked to change their practice are coping with the change.

### **The Organization of the Dissertation**

This chapter has provided the background introduction of the problem. In chapter 2, I turn to discuss literature that grounds this study, which is how beliefs, experiences, and structures interact to influence the teacher educators’ practice. In chapter 3, I describe the research site and discuss the research design I used to collect data. This is followed by 3 chapters (chapters 4, 5, 6) of the cases I studied. In chapter 7, I discuss how the three cases shed some light on some complexities of reforming practice and implications to practice.

The

sec

unf

Gu

edu

rela

dev

p. 2

exp

necc

rath

edu

and

**Bel**

alter

rese

## **Chapter 2**

### **REVIEW OF PRIOR RELEVANT LITERATURE**

In this chapter I review literature related to my study. It is divided into two parts. The first part reviews literature on how experiences and beliefs influence practice. In the second part, I describe institutional structural issues and how they can influence practice.

Much research has been done on teachers, prospective teachers, and students, but unfortunately research on teacher educators is scanty. Researchers (Ducharme, 1994; Guilfoyle, et al, 1996, p.158; Lanier and Little, 1986) suggest that the study of the teacher educators is a neglected area in educational research. Teaching in university settings is relatively unexamined. But most recently, teacher educators are beginning to study their development and their own pedagogy within the university context (Knowles et al, 1994, p. 214). In this chapter, I explore what we know about educational beliefs and experiences and their impacts on teaching. But given the research gaps just noted, I necessarily lean most heavily on research regarding teachers' beliefs and experiences rather than teacher educators. I argue that this research, while not directly about teacher educators, is nevertheless valuable to help us think about how teacher educators' beliefs and experiences influence their teaching.

#### **Beliefs, Experiences, and Changing Practice**

Research suggests that beliefs are hard to change and are likely to be difficult to alter when academic conventions and long-held, deep-seated beliefs are involved. Some researchers, among them, Kember and Gow (1994), and Prosser, Trigwell and Taylor



(1

m

(1

as

fo

ma

tea

ma

wi

in

ch

al

be

ha

tea

For

an

in

su

an

Ri

(1994), have claimed that the conceptions of orientations to teaching that faculty hold may be an important influence affecting the quality of students' learning. Raymond et al, (1995) indicate that when current teachers were students, they experienced mathematics as predictable patterns of lectures followed by seat work and tests and quizzes and they followed the way their teachers had spelled out. [These teachers tend to base their mathematical beliefs on their experiences. Raymond et al, further go on to say those teachers are "likely to teach in the same manner perpetuating the chain of beliefs about mathematics as mechanical in nature, a fixed body of procedures that can be performed without thinking" (p. 58). Research suggests that teacher beliefs and reflections are "important drivers of classroom practices and thus must be considered to understand any changes in practice" (Roychoudhury, and Kahle, 1999, p. 234).

Evidence is accumulating to suggest that teacher beliefs and experiences (Clark et al, 1987) can have profound effects on their classroom practices. As such, beliefs should be considered in understanding any changes in practice (Schon, 1991). Most teachers have been taught by the examples provided by dozens of teachers who taught them what teaching is supposed to look like (Anderson et al, 1992; Grossman, 1990; Mead, 1992). For the most part, these experiences fit a model in which students are told what to learn and tested to see if they can accurately retell what they were told. But changing practice in a worthwhile and significant way will require teachers to learn not only the new subject matter and new instructional techniques, but will require them to alter their beliefs and conceptions of practice and their theories of action (Elmore and Sykes, 1992; Richardson, 1990).

Complex changes in teachers' behavior such as teaching style, skills, and new norms in inquiry-based curriculum innovations are, according to Fullan and Promfret (1977), difficult and consequently unlikely to be implemented satisfactorily unless special steps are taken. These kinds of changes involve re-learning on the part of the teachers. Change in teaching approach or style in using new materials presents greater difficulty if new skills must be acquired and new ways of conducting instructional activities established. Teachers who might see the changes as interference in their teaching may resist such reforms. One of the findings in Gross et al, study (1971) was that implementation of changes characterized by new teaching strategies and role relationships with students showed lower levels of implementation than those characteristics involving change in structure, use of materials, and administrative procedures.

Research shows that even with teachers who have embraced change, it is difficult for them to leave the traditional approach to teaching. A case in point is that observed by Cohen (1990) of a teacher who believed that she had revolutionized her mathematics teaching. Mrs. Oublier had revised the mathematics curriculum to help students understand mathematics rather than just memorize it, but still conducted her class in ways that discouraged inquiry. Although the teacher had adopted innovative instructional materials and activities, her teaching was a mixture of what was old and what was new in the sense that she used the materials and activities as though they contained only right and wrong answers. What goes on in classrooms of teachers who have embraced a reform may or may not reflect change in practice. Although Mrs. Oublier had embraced the new reform, her practice was still influenced by her beliefs and past experiences.

Some researchers, among them Knowles and Holt-Reynolds (1991), assert that students come to their formal studies with powerful history-based lay theories which have developed naturally and were not learned at a conscious “announced, recognized moment from formal teaching, learning episode” (Holt-Reynolds, 1991, p.5). Beliefs and experiences that are formed through personal experiences are, according to Schmidt et al, (1990), likely to hinder the effort of reformers, for prior beliefs are likely to stand in the way of change. Beliefs expose our fundamental ideas about our life experiences and our actions whether we acknowledge those beliefs or not (Raymond et al, 1995). Kloosterman et al, (1992) support this view and go further to say that teacher actions in turn affect students’ belief systems.

However, beliefs cannot be changed without a person’s acceptance of new information; his acknowledgment that the new information is helpful in explaining new phenomena; and his preparedness to change existing theories or beliefs (Tillema, 1998). Fullan and Park (1981) have emphasized the role of beliefs in blocking successful implementation of innovations. They maintain that teachers rely more on what they think would work in classrooms and that these conceptions could be very rigid and originate long in the past. These studies provide a framework for us to think about the relationship between the teacher educators and their practice.

In teacher education, it is attractive to tinker with the form of the program in contrast with how teacher educators should change their thinking on how students should learn and be taught. Fundamental assumptions, institutional arrangements, faculty roles, and relationships that involve beliefs are hard to change (Ebmeier, et al, 1991).

St

att

the

tea

im

ar

ins

sup

str

ed

su

in

E

to

n

t

b

v

## **Structures and Practice**

To understand how method courses teacher educators teach, we should not pay attention only to their beliefs and experiences, for they are not the only factors that shape their practice. We also need to understand how institutional structures shape their teaching, and how these three factors influence one another. For curriculum change to be implemented there should be structures, which are congruent with the innovations (Fullan and Promfret, 1987). Curriculum changes will not occur without enough resources, institutional support, and a good reward system. These structures may be necessary to support teacher educators in their attempts to implement change, and lack of certain structures may inhibit implementation. In a review of literature on change in teacher education, Friedberg & Waxman (1990) concluded that there has been no fundamental or substantive changes in teacher education during the past several decades, and this is due in large part to lack of change in support structures.

## **Resources**

For the purposes of this study, resources will refer to finances, time, workload, teaching materials, equipment, and space. Lack of resources seems to be taken as the most serious constraint to any innovation. Many teacher educators perceive resources as the main inhibitors of change. Research shows that historically, teacher education has been economically impoverished. When the support structures for maintaining the change processes are unavailable or inadequate, change may be difficult to come by. Little and Lanier (1987) posit that universities still view teacher education as a relatively simple endeavor compared to other programs. As such, the amount spent in many teacher

ed

(C

ti

na

co

ec

sp

w

be

ha

so

su

sh

m

te

cu

m

in

education students is “half as much as the average spent at the end of all undergraduates” (Goodman, 1988, p. 47). Yet, an increase in funds, time to develop a new curriculum and time to work with others will be required to implement the kinds of structural changes necessary to transform teaching in methods courses classes.

The poor financial support contributes, according to Peseau (1982), to conservative thought and behaviors on the part of faculty who are associated with teacher education. He puts it this way:

Financial starvation in academic programs is analogous to nutritional starvation in biological organism. Both result in inadequate development and extreme conservatism of behavior (p.15).

Supporting the argument, Bush (1987) suggests that universities and colleges spend far less on teacher training than they do for any other of the professional fields in which they offer training. “Past efforts of reform have not resulted in big changes partly because most of them have not had sufficient funding” (p. 16). In South Africa, funding had a discriminatory effect on what could be done in class. Limited access to diversity of sources to funding made black institutions dependent on tuition fees and government subsidies (Subotszky, 1997). As such, necessities such as books and journals were in short supply. Related to this issue of funding is the influence of time. Heavy workload means that teacher educators do not often find time to do research. Time spent on teaching and instruction includes time spent also in advising, developing a new curriculum, preparing courses, and supervising students. Arends et al, (1996) posit that most human endeavors are greatly influenced by time, a resource that always seems to be in short supply. Teacher educators often lack sufficient time for preparation. High



w

T

th

s

h

b

n

c

res

cl

as

re

fa

S

n

n

c

workloads influence teacher educators' morale and their ability to respond to students. The absence of inquiry-based curriculum materials becomes an impediment because those who may want to teach by inquiry have to write appropriate lessons to guide their students in the construction of understanding. In the case of South Africa, resources are hopelessly skewed due to the past fragmented education system. Not many reforms can be fully implemented without new material resources. The new vision of teaching will need a variety of instructional materials, "richer in variety, and adaptable to contingencies" (Griffin, 1996, p. 121).

Institutional commitment to the priorities of teaching can be shown by sufficient resources for effective teaching and learning, for example, appropriately appointed classrooms, well equipped libraries with recent journals and books. Reformers usually ask people to change practice but educators often have not been offered many of the resources that might support such change, such as improvements needed on equipment, facilities, laboratories and the library.

### Support

Lack of support from one's colleagues or from administrators places a lot of restrictions on practice, will, and spirit (McLaughlin & Talbert, 1993). Each university is responsible for the support of the professional activities of its faculty which enable its core productive activities— teaching and research— to be carried out (Pollicino, 1996). When supportive structures for maintaining the change process are inadequate, even faculty in a site where they have been eager to embrace a change effort may elect not to do so or they may select to participate on only a proforma basis (McLaughlin, 1990).

T  
th  
(N  
ar  
re  
th  
ed  
ed  
de  
so  
im  
wi  
thi  
cur

Re

inc  
Th  
ch  
in  
res

Teacher education lives in the context of the institutions of higher education, and most of these have established orderly yet time consuming processes for the institutional change (Joyce et al, 1977). This is true for South African universities, where proposed changes are submitted to several layers of committees and have to be screened for their available resources. How should colleagues and administrators support a teacher educator who has the enthusiasm to implement a curriculum innovation? How well does the school of education serve to encourage a teacher educator who wants to change?

Accomplishing instructional change will require learning on the part of teacher educators (Cohen & Barnes, 1993; Sarason, 1982). Cohen and Barnes suggest that by definition, new policies contain new ideas or new configuration of old ideas, which imply some acquisition of new ways of thinking and teaching. There remains the extremely important question of familiarization training— the training that will acquaint teachers with information or experience necessary for understanding new ways of teaching and thinking. It is almost predictable that without familiarization training, a major change of curriculum will fail.

### Reward Structure

One of the key tensions in the curriculum change process is related to the incentive system in higher education and the way that it works against thoughtful change. The enormous time commitment necessary to formulate and implement a more challenging teacher education program becomes problematic, especially to junior faculty, in an environment in which rewards are focused on the production of publishable research (Young and Bartel, 1996, p. 211). Fenstermacher (1992) argues that there are

fe

U

19

sc

th

H

th

go

te

sc

19

or

in

ma

it

be

cri

pra

few incentives for faculty to participate in activities related to improving teaching. In the U.S. there is a rising importance of research to the reward structure (Clifford & Guthrie, 1988). This has developed into a two-tiered faculty (researchers and clinicians) in all schools, colleges, and department of education (SCDEs), and such fragmentation erodes the effectiveness of preparation of teachers (Clifford and Guthrie, 1988; Darling-Hammond, 1994; Goodlad, 1990; and Lanier and Little, 1986). The literature indicates that academic reputations of the education professorate are rarely made as a result of good teaching or curriculum development (Burch, 1989; Portman, 1993). Promotion and tenure in universities have become more rigorous with greater emphasis on research and scholarly productivity (Clifford & Guthrie, 1988; Howey & Zimpher, 1989; Schebel, 1989; Wisniewski & Ducharme, 1989). Junior faculty are likely to opt for work orientations and activities that will bring them rewards of tenure, promotions and salary increases.

In his study, Goodlad (1990) found out that requirements for tenure push faculty members toward the behavior known to be most rewarding. Goodlad goes on to say that it is reasonable to assume that faculty morale is significantly affected by “discrepancies between the mission they prefer and the mission they perceive as most closely related to criteria for tenure” (p.182). Goodlad captures the importance of rewards in changing practice well when he says that,

In order for energies to be galvanized for purposes of change and renewal, faculty members need to be convinced that the direction of change will be toward their preferences for good work...If faculty members' time and energies are to be mobilized for renewal, they must hear an alternative drumbeat and subsequently see progress toward the promises of drumbeat. Unless it is clear that the work of planning and

pe

in

in

sta

de

wh

Co

Kr

the

jo

q-

no

ac

de

te

the

the

renewal are to be rewarded, there is little likelihood that it will begin (p.195).

Responding to widespread complaints that undergraduate teaching is neglected, particularly at research universities, critics have suggested that reward structures offer inadequate incentives to teachers to devote time to teaching activity and teaching improvements.

Researches such as Nolan (1985) noted that most teacher education academic staff perceive that they would not be rewarded with promotion for curriculum development efforts and excellence in teaching. Nolan is supported by Diamonds (1993), who argues that those faculty who spend time in teaching are not able to do research. Consequently, they do not get promoted because they do not have time for research.

In their critique of reward structures within the school of education, Cole and Knowles (1996) said that what is rewarded is “plain and simple: publications, the more the better, of a particular perspective, style, or genre, and in prestigious refereed journals”(p.121). They cited Clifford and Guthrie (1988) who said, “education faculty quickly come to understand which research and publication efforts count and which do not. The result is that education faculty veer away from professionally demanding activities and toward those easily understood and hence rewarded in academic departments” (p.337). However, some researchers maintain that research enriches teaching, that is, research can improve teaching, but it is the emphasis on research over the valuable faculty work such as teaching, which is a concern.

Most researchers, among them Gaff et al, (1971) and Elijah (1996), are convinced that if faculty are devoting a considerable amount of their time to students and deriving



pe

ef

al

ag

ne

te

W

m

Su

ge

pe

I

ar

co

personal satisfaction from teaching, there should be a visible reward structure for such efforts. To Gaff et al, (1971), a merit advancement procedure “must be employed to allow faculty members to get ahead by developing excellence in teaching”(p. 43). Elijah agrees with Gaff and further argues that the institutional expectation “needs to be modified to take into consideration the complexity and integral nature of pedagogy to teacher educator’s university work and lives”(p.84). He goes on to say that

If those who administer institutional contexts recognize the commitment that teacher educators have to teaching only in terms of rigid dimensions of scholarly research and publication, then teaching as a scholarly activity-- that is central to teacher educator’s lives--will remain devalued in institutional contexts. This simply means that teacher educators will continue to feel devalued within institutional contexts, therefore never feeling rewarded, satisfied and autonomous in their work...”(p.85).

When incentives are not tied to the development of the curriculum, teacher educators might not get motivated to change their practice.

## **Summary**

Research suggests that structures work against reform of teaching in university generally and in teacher education specifically. The difficulty of change in teaching also points to the importance of teachers’ beliefs and experiences. I turn now to describe how I developed a study to examine the interplay of these three factors-- beliefs, experiences and structures-- in the work of three South African teacher educators at in a university context.

## **Chapter 3**

### **METHODOLOGY AND RESEARCH PROCEDURES**

#### **INTRODUCTION**

In this study, I investigate the teaching practice of three teacher educators by examining the interaction amongst their beliefs, experiences and institutional structures. Not only do beliefs and experiences interact with the teacher educators' teaching, but structures also play a significant role in what they do in class. My subsidiary questions, each with its own questions, were asked with the intention of understanding better the influence of this interplay: How do beliefs and experiences of teacher educators affect their change in instructional practice? How is the teacher educator's instructional practice influenced by structures?

I focused on three teacher educators in order to have an in-depth investigation and understanding of each teacher educator's way of changing his or her practice in the face of the reform. The new reform focused on the deeper understanding of what students are learning. Students' background experiences are significant. The reform –oriented curricula and teaching methods emphasize problem solving, data gathering, and data presentation. In order to look at the three teacher educators comparatively, I used a case study design to analyze, interpret, and write my findings of each participant. The case study design was used in order to probe deeply and to analyze intensively (Manion et al, 1994). I wrote cross-case analyses and examined themes that cut across the three cases, and finally, I used individual cases to explain differences within these themes.

in

ca

re

ri

al

th

th

us

Si

ur

ur

ur

ur

a

ce

al

To

pr

b

ur

m

Of course the problem with case studies is lack of generalizability. Yet while the insights which may be acquired concerning a particular case may not apply to any other case, they may suggest problematic circumstances and areas of significance to researchers and readers (Firestone, 1993). For this to occur, the researcher must give a rich and detailed description of a case, which might suit the situation of the readers to allow them to consider applying the findings.

This chapter tells us about how I collected my data. I begin with how I selected the site for my research and how I selected my participants. I then discuss the methods I used to collect my data and, finally, I discuss the data analysis methods.

### **Site Selection**

The study was located at Waterfall University, one of the historically black universities in the northern province in South Africa (The names of participants and the university used in this study are pseudonyms). The university was situated in the midst of a black rural community, and most students originated from the surrounding rural communities. They commuted to and from the university on a daily basis. But there were also students from other places, bringing a diversity of cultures together in one university. The academic staff was comprised of local people and people from other origins. I had prior knowledge of this university, and had been teaching at the university for eight years before I decided to pursue my doctoral studies. Apart from teaching a graduate class and undergraduates classes, I taught methods course for two years. A year before collecting my data, I visited this university to explore the possibility of this project.

A

se

bi

st

E

no

re

pr

an

kn

lu

st

ti

ti

o

ti

s

ti

ti

o

o

Teaching and learning at Waterfall University, as in all black universities in South Africa, suffered the consequences of being at the receiving end of the inequalities of a segregated school system (Nkabinde, 1997). Quality education for all students, especially black students, is given first priority in the new reform, which focuses on what the student is learning through problem solving, discovery, data gathering, and data analysis. Education for blacks during the apartheid era emphasized the production of knowledge, not critically analyzing information, weighing evidence, and solving problems. The new reform put the student at the center of the learning process.

The decision to locate the study at this university was also made because the principal took seriously the mandate of the reform to empower students with knowledge and skills necessary to develop themselves and their communities. That is, the skills and knowledge that students would receive would enable them to further fulfill the mandate to their communities. The principal, who was seen by many as visionary, felt that the skills and knowledge would bring about transformation in South Africa as a whole, and that transformation at a national level would require transformation or the restructuring of the university. Therefore, I selected this institution because the principal had encouraged changes in the skills and knowledge that students learned as well as structural changes in the university. In this sense, I was looking at change in what appeared to be a best- case scenario context for South African schools of education.

I also located my study within a single institution for practical reasons of cost and access. In addition, it was recognized that a cross-institutional study would present considerably more complexity in data analysis because of differing practices and policies.

U.S. I g

got perm

to work

The Par

There w

study. D

these bo

- initial i

about t

three i

their p

refor

educ

and

diff

for

w

u

s



To gain entrance to the site, I sent a letter to the university while I was still in the U.S. I got permission to do research within the university premises and at the same time got permission from the dean of the school of education to work with whoever would like to work with me.

### **The Participants**

Three full time methods course teacher educators were the focus of this study. There were four full time methods course teacher educators employed at the time of study. During my fieldwork, I was not able to arrange an initial interview with one of these before class boycotts began; hence I dropped this participant for the study. In the initial interview, which lasted for an hour, I wanted to find out if teacher educators knew about the reform, and if they were changing their teaching according to the reform. All three indicated enthusiasm about the reform and they explained that they were aligning their practice with the reform. The participants also described what they thought the new reform was all about. I ended up with all three as my participants. The three teacher educators taught three different methods courses, namely Geography, Physical Science, and Economics. Therefore, the choice of the teacher educators automatically produced different methods courses, for there was only one teacher educator per method class.

Since the new reform was concerned with changing teaching, it was significant for me to concentrate on teacher educators who were teaching method courses since they were directly involved with the preparation of prospective teachers. I wanted to understand how they were applying the reform in their everyday teaching. I limited the study to the teacher educators for method courses because approaches to and methods of teaching were more emphasized during the last year of teacher preparation. It was not

important

not deal

because

curriculum

carrying

learn, it

educator

students

of gener

trying to

practice

found th

of a case

method

qualific

energeti

requirem

of teach

students

understo

to me. H

important for me to get the perceptions of administrators about the reform, for they were not dealing with it directly in class. I also did not focus on the perceptions of students, because my intention was not to find out about how students learn within the new curriculum, but to find out how teacher educators were changing their practice and carrying out the mandated curriculum. Although I was not concentrating on how students learn, it was valuable for me to go to class and observe so that I could see how teacher educators expressed their beliefs, the discourse between teacher educators and their students, and what sorts of things they valued in their teaching.

The selection of participants was also not random for there was no “presumption of generalizing the findings to a larger set of universities” (Cusick, p. 40, 1981). I was trying to generate an explanation, which would help me hypothesize about changing practice in universities. It was not necessary for me to have random sampling because I found the kind of people I wanted to interview. What was necessary was to get instances of a case in a site (Glasier et al, 1970).

The three teacher educators, two males and one female, taught three different methods course. These teacher educators were experienced and had professional teaching qualifications. Susan struck me during the initial interview as a teacher educator who was energetic and always planning what her class was going to do in line with the requirements of the reform. She believed that her students needed to know the new ways of teaching before they left the university at the end of the year and that involving students’ own experiences in teaching was the right thing to do, for that way they best understood what they were taught. Kenneth’s knowledge of the new reform was striking to me. He had far more knowledge about the reform than any of the people I talked to. At

that time

getting the

talked about

transform

their work

prospects

educational

and un

time to

who were

educational

happened

methods

according

were

under

the way

inter

with

begin

study

that time, he indicated that the reform was needed because for some time blacks were not getting the right education. Simon was very keen to be a participant in my research. He talked about changes he was making in his science teaching because he wanted to transform the teaching of science. These teacher educators were people who wanted to do their work well, for they believed they could make a difference in the quality of prospective teachers, and thus in education.

I had planned to have initial interviews with all methods courses teacher educators, and from those interviews, I would select three who would show enthusiasm and understanding of the reform. When I went to the site, I found that only four were full time teacher educators and the rest were part-time. My plan was to work only with those who were hired in full time position. I looked for the best case scenario where teacher educators could get support as they worked with the new curriculum, and that could only happen when faculty was working full time. I immediately planned to interview all four methods course teacher educators and would thereafter select my participants in accordance with the standard that I had set. It was thought that teacher educators who were full time benefited from seminars and meetings, which were geared towards the understanding of reform. Unfortunately I could not get the fourth teacher educator before the whole student body began boycotting lectures. All the three that I had initial interviews with showed enthusiasm and indicated that they were aligning their teaching with the reform. Thus in the end, I studied these three.

Similarly, the initial plan to observe and interview one participant at the beginning of my data collection and then add another participant in the middle of my study could not work. I was made aware before I left the U.S that I might not be able to

make ob

June and

Septemb

observat

observat

A

practice

reform, a

educator

influence

A

in this ca

remembe

generaliz

reader to

of chang

which te

question

and com

A

interview

conversa

was suc

make observations beyond May since students would be writing their examinations in June and that prospective teachers would not be going back to the university until September due to their practice teaching. The class boycotts also contributed to the single observation I made. I was told by teacher educators when I arrived that if I did not do my observation by the third week of May, I might have to do without them.

Although the three teacher educators indicated that they were changing their practice to align it with the reform, I expected differences in how they interpreted the reform, and in how they changed their practice. I expected differences in how the teacher educators' changed their practices to occur due to beliefs, experiences, and structural influences.

A common concern about this type of research would be the small sample I used, in this case three teacher educators in one university. However, it is important to remember that this type of research was not intended to produce results that could be generalized to larger populations. The intention of the study was rather to allow the reader to access the world of the teacher educators and the way in which they made sense of change. Such studies are rare, yet very important in understanding the challenges which teacher educators face as they change their practice. In particular, it raises questions about how teacher educators view the mandated curriculum and the institutions and communities in which they work.

Apart from interviewing the three participants, I also had formal and informal interviews with others at the university about two of my participants. This informal conversation was aimed at gleaning information about the two participants because there was such a vast difference in how they responded to simple questions. I also had informal

conversations with two students from a class I observed. These were short and conversational in style and tone. These conversations were not arranged and they were intended to find out how typical the practice was that I observed in class.

I went to the university every day except for Fridays over a period of three months. The purpose for doing this was to familiarize myself with the participants, and because of interviews that at times needed rescheduling due to meetings. Spending some time in familiarizing myself with my participants, for example, by spending time with them in their offices and on campus, helped me to discover some tensions with two of my participants which I would not have known if I had not been going to campus more often. I also collected documents from the administration about the institutional reward structure.

### **Data Collection Methods**

Qualitative methods were judged to be appropriate for this study, and the primary data sources were observations, interviews, and documents. I took into consideration the characteristics of qualitative research defined by Burgess (1985) in selecting interviews and observations as methods for collecting data in this study: the researcher worked in a natural surrounding; the study was designed flexibly; and data collection and initial data analysis occurred simultaneously.

#### **Observation**

What kind of data was collected?  
Observations, interviews, documents

My observation was focused on the tasks that the teacher educators set for students, on discourse between the teacher educators and students, on student-to-student



interactio

teaching.

O

the best a

classroom

to condu

important

contrived

I

classroom

congruen

24 hours

credibilit

a narrativ

informat

actions. A

I

observat

The first

teacher c

by other

why they

interaction around the classroom work, and on how the teacher educators conducted their teaching.

Observations were very useful in describing classroom behavior, and were seen as the best approach for gathering accurate information about what took place in classrooms. Behavior was recorded as it occurred naturally and observations enabled me to conduct the study in the participants' natural environment. These advantages were very important for research designed to study what occurred in real life as opposed to highly contrived settings.

I documented my observations by keeping a running record of notes for each classroom observation and extended them within 24 hours to more detailed notes. This is congruent with what Lareau (1989) suggested that if field notes are not expanded within 24 hours, it might be better to reschedule another observation because the accuracy and credibility of field notes are likely to be threatened. As a result, on the same day, I wrote a narrative summary of the observation of the lesson and class. The summary included information on the students in the class, talk during the lesson, students and teachers' actions, and the behavior and the role the teacher educator seemed to play.

I conducted post-observation interviews with each teacher educator. Post observation interviews were semi-structured and responsive to the lessons I observed. The first question I asked, "How do you think the lesson went," was intended to allow the teacher educators to open up to discuss their lesson with me. This question was followed by other questions which were focused on what the teacher educators were trying to do, why they were doing what they did, and what they thought students got from the lesson.

Problem

F

round of

third we

Prospect

since the

observe

the teach

them and

views of

would ha

classroom

changed

7

do more

teacher

data col

context.

provide

views c

me to s

### Problems Experienced during Observation

Each participant was observed once. Just when I was about to finish my first round of observation, students began to boycott their lectures. The boycott started on the third week that I was on the site and extended until the university closed in June.

Prospective teachers did not come back to class when the university reopened in July since they had already begun with their two months teaching practice. I had wanted to observe my participants four times. The first two observations were intended to find out the teacher educators' dominant ways of instructional practice even before I interviewed them and to provide a means of checking actual classroom practice against the expressed views of the teacher educators. The last two would have been done around interviews and would have enabled me to have more access to the quality of instruction in the classrooms and to see much about the teaching of the courses. However, these plans changed in light of student disruptions.

The disruptions led to the modifications of the research strategies. I was forced to do more interviews to obtain information, and also to use documents I was given by the teacher educators and others. According to Vithal (1998) disruptions to carefully planned data collection strategies are a norm rather than the exception in the South African context. However, observations, limited though they were, were helpful because they provided me with a means of checking actual classroom practice against the expressed views of the teacher educators. Second, observations were helpful in that they allowed me to see some of the beliefs of the teacher educators enacted.

Interview

conducts

interview

observed

teaching

control

research

ambiguous

when the

usage of

the disc

response

assist me

manner.

(Lederma

interview

fit the pa

Garden f

## **Interviews**

The second method of data collection was structured and informal interviews. I conducted pre-observation interviews with teacher educators as well as post-observation interviews. Post observation interviews were semi-structured and responsive to the lesson observed. Questions focused on what the teacher educators were teaching, how they were teaching the materials, and what they thought students got out of the lesson.

The interview method was preferred in this study in that it would allow me to control the dialogue, maintain flexibility, and explore issues that suddenly emerged. The researcher can rephrase the questions if the answers given by participants are unclear and ambiguous, and the researcher can probe for more specific answers and repeat a question when the response indicates that the participant misunderstood. The flexibility in the usage of the interview guide enables the researcher to capitalize on opportunities during the discussion to clarify, probe, omit topics already discussed, and follow-up on responses (Rikard, et al, 1996).

Before the formal interviews were carried out, I developed an interview guide to assist me in getting to the important issues of my study in an organized and effective manner. An interview guide is important to the successful use of this research technique (Lederman, 1990), for a well-articulated guide ensures the quality and value of the interview process. The researcher is free to vary the sequence of topics and subtopics to fit the particular situation and also to return to a topic more than once (Garden, 1980). Garden further asserted that

rigid list

among

times du

question

than be

keep up

tape rec

response

an imme

interview

The Inte

E

informat

learning

interact,

their teac

The interview guide...provides only an outline or a checklist of the topics and subtopics to be covered but does not specify a sequence. In some cases it might also include several ways of wording questions or various probes which might be useful in pursuing the subject. The interviewer... may also return to a topic more than once. He is free to omit questions suggested by the guide if he feels that the information was already obtained indirectly. He is free to add questions and reward others when this help conveys the meaning (p.60).

The interviewer with a good interview guide can use it flexibly rather than as a rigid list of questions. The interview guide was also constructed to maintain consistency among interviews. Questions for interviews were arranged in some topical order. At times during the interview, the teacher educators brought up matters that related to a later question of the list. It was therefore important to stick with their sense of sequence rather than be concerned with the order of questions on the interview guide.

At first when I started to interview, I took down field notes, and when I could not keep up with the flow of information from the participants, I asked them if I could use a tape recorder and they all agreed. I took notes and at the same time recorded their responses. Writing notes while interviewing and recording had an advantage of obtaining an immediate written record of the interview and allowing me to have an outline of the interview.

### The Interview process

Each participant was interviewed three times for 90-120 minutes. First, I elicited information about the participants' beliefs about approaches to teaching, students' learning, and goals of teaching. Because beliefs are formed early in life when people interact, this led me to find out information about my participants' prior experiences with their teachers in primary and secondary schools, university and teacher education; what



their prior

affected t

practice d

backgrou

the same

their perc

their perc

and how

learning.

attempt t

teaching

h

how the

importan

asked ab

and wha

perceive

mandate

h

understa

were pro

particip

practice

their prior experiences about teaching were in the community, and how these experiences affected their beliefs about teaching. In particular, I was trying to find out if the teaching practice of teacher educators reflected their beliefs, which in turn, reflected their own backgrounds and experiences (Baca & Cervantes, 1989; Garcia & Ortiz, 1988). During the same interview, I explored how my participants' beliefs and experiences affected their perception of and approach to practice; how their beliefs and experiences affected their perceptions of structure; how the structures affected their beliefs and experiences; and how the participants' beliefs and experiences affected their thinking about students' learning, approaches to learning, and goals of teaching. Then I used this information to attempt to make connections between their experiences, beliefs and their views about teaching later on.

In the second interview, which focused on curriculum issues, I wanted to find out how the mandated curriculum affected the participants' practice. These issues were important to me because so much of the perspective of the reform hinged on beliefs. I asked about the participants' practice and their perception of their instructional practice and what they were doing in class; how their practice had changed and how they perceived their practice to be different from what it used to be; and how they thought the mandated curriculum was in line with what they were doing.

In the third interview, I asked questions on structural issues because I wanted to understand how instructional practice was influenced by structures. The following areas were probed: resources that influenced participants' practice and how they affected the participants' view of curriculum change; incentives that influenced the participants' practice and how those incentives affected the participants' view of curriculum change;

the kind

curriculum

their tea

**Docum**

consider

their tea

insight i

learn and

used as

and the

at assign

became

assignm

about w

**My Ro**

inform

teacher

research

seemed

the kinds of support and opportunities the participants wanted in order to support curriculum change. I elicited information on participants' workload and how it affected their teaching; time and its influence on the participants' teaching and curriculum change.

## **Documents**

Apart from interviews and observation, the data collection was enriched considerably when participants contributed important documents that had been used in their teaching. The course outlines and any documents used in class helped me gain an insight into what the teacher educators believed was important for prospective teachers to learn and to indicate the teacher educator's thoughts. In other words, the documents were used as a way of understanding the views of the participants about teaching and learning and their beliefs about which knowledge was important. The documents included looking at assignments set for students and looking at students' graded group assignments. These became valuable, especially as I had limited class observations. I was able to use these assignments to understand the participants' views about teaching and learning and also about what was important to learn.

## **My Role in Data Collection**

My role in this study was that of an observer-participant because I was collecting information about how the structure, beliefs and experiences interacted to influence teacher educators' practice. I selected the role of observer-participant where the researcher does not enter into sustained relationship with the researched. This approach seemed ideal since as an overt role, it did not restrict me from communicating with the

partic

studen

interp

were

Havin

interp

structu

seekin

had st

did no

minim

examp

educat

studen

the res

the san

voice,

consist

value o

educate

unknow

participants. In this way, I was able to collect data by talking to the participants and some students and at the same time by observing the teacher educators and their classes.

However, being a South African, I knew that there was always the danger of interpreting things that were familiar problems at a familiar site. Studying things that were familiar created a difficulty for me at times to interpret my observations well. Having been schooled during the apartheid system of Bantu education at times made the interpretation of what I saw difficult since I knew the political, economic and social structures of the country. I was tempted to be quick to come to an interpretation without seeking additional information. To counter that, I actively sought out many views. I also had strongly held views. For example, I realized that I had a stance about the reform and I did not want my bias to shape what the teacher educators said to me. As such, I tried to minimize this limitation by deliberately not challenging them when they responded. For example, I was not convinced that it was going to be possible to change teacher educators' beliefs after being schooled and taught in a system which did not expect students to learn with understanding.

Although I probed their responses, I did not cut them off when they responded. If the response was not clear, even after wording it differently at the spot, I would try to ask the same question tactfully during the next interview. To lessen the influence of my voice, I used a lot of direct quotes. I also used an interview guide, for it provided consistency among interviews. The interview guide also helped to ensure that quality and value of the interview process were maintained. It was also hoped that the teacher educators opened up to me as a colleague, something that they would not have done to an unknown interviewer. I did not act as a colleague who shared information, and I also was

not m

havin

other

docu

sessio

discu

were

prese

were

made

word

the in

interp

me n

woul

unim

me th

Afric

view

not making evaluative remarks because I did not want to jeopardize my chances of having my participants open up to me, neither did I want to endorse one person over others. For example, I deliberately held back sharing information on promotion documents with one of my participants who did not have them until the last interview session. If I had shared the information earlier, I would have been forced to enter into discussions about how the institution should have made it a point that those documents were available to all teacher educators.

The question of the extent to which teacher educators modify their practice in the presence of an observer should of course be considered. However, my three participants were all experienced and confident teacher educators and I saw no evidence that they made special preparation intended for my observation.

Familiarity with the situation had also disadvantages. I worried that I would put words in my participants' mouth in trying to stretch out their responses. But sticking to the interview guide and using straight quotes helped me not to bring up my own interpretation. Second, I also worried that my familiarity with the situation would make me not notice some of the pressures the teacher educators were going through because I would be concentrating on what I cared about most and the rest of things would seem unimportant. During my meetings with my advisor she asked a lot of questions to make me think about how one issue might or might not affect teacher educators in South Africa. In additional, she pointed me to some articles to enable me to consider alternative views about issues.



**Data**

Data

colle

starte

learn

brou

and H

teach

the d

how

about

data s

quest

behav

exam

data i

such

instit

would

practi

## **Data Analysis**

Data analysis for this study was an ongoing process of searching for patterns. Data collection and data analysis were interactive. Data was analyzed during data collection so as to validate and interrogate data verifying emerging themes. The process started with analyzing data on beliefs and experiences about teaching, approaches to learning, and goals of learning. This analysis yielded information on what participants brought with them into teaching as a result of their experiences in all levels of education, and how they first taught, which was very important in understanding their present teaching. I then analyzed information on curriculum issues. To do this, I first analyzed the descriptions of their practice as told by them, the kind of practice they believed in, how that influenced the changes in curriculum, and the opportunities they had to learn about curriculum change. I also used the coded notes on observation alongside with this data so as to understand the participants' behaviors and actions.

Although only one class observation was made, it was helpful in responding to questions on the role of the participants, how they interacted with their students and their behaviors and actions. The analytic questions helped me to support my responses with examples from my observations. I therefore incorporated this information in my coded data in the information on curriculum issues. I then analyzed data on structural issues such as incentives, support by the participants' department, school of education, and the institution. The information I got from this data enabled me to understand what would or would not hinder the participants' practice.

I analyzed all the documents I collected to develop an understanding of their practice. The documents and materials were believed to best resemble the participants'

be  
qu  
mi  
the  
ini  
ac  
co

**Su**

ho  
ma  
an  
bo  
of  
th  
an  
w

in  
ec

ic

beliefs on what they thought was important for their students to learn and to know. Direct quotations to an emerging theme were used to provide voices of the participants and help minimize my bias in the interpretation. I identified themes emerging from interviews and then documented and synthesized common themes, leading to the development of an initial list of responses to the questions I asked. I looked for similarities and differences across the participants' responses to similar questions. From all the coded information, I constructed cases of each participant.

### **Summary of the Chapter**

In this chapter, I described my rationale for choosing the site for my research and how I collected data from the three teacher educators. My primary data collection mechanism was interviewing and observation, which were supplemented by document analysis. Although I only observed each teacher educator once because of the class boycotts, these observations were used to find out the teacher educators' dominant ways of practice before I started interviewing them, check the actual classroom practice against their expressed views, and to see the beliefs they enacted in their classrooms. Interviews and document analysis remained the most important methods of collecting data when I was no longer able to observe.

The post-observation interviews were semi-structured. The intention of these interviews was to discuss the lesson in a non-threatening atmosphere where the teacher educator reflected on his or her lesson.

Documents were analyzed and common themes emerging from interviews were identified, which in turn enabled me to look for differences and similarities across the

teacher educators. The analysis of data was an ongoing process to search for patterns.

Data was analyzed during collection so as to verify emerging themes. I constructed cases of each teacher educator from using the coded information.

## **Chapter 4**

### **A TRANSFORMED TEACHER EDUCATOR: A CASE OF SUSAN**

#### **Introduction**

Susan is a young woman who has been in teaching for 12 years, four of which were spent in teaching at high school, three at different teachers' colleges of education; one at a teacher training center; and four at the university. She took a methods course in geography after completing high school at a training college. Upon completing her diploma in teaching, Susan started teaching at a high school at her hometown. At the same time she enrolled at the university on part-time basis to do her undergraduate study.

She is committed to teaching differently than she was taught. Susan believes in her students' abilities to learn, and she is confident that her students can gain insight into Geography if they are actively involved in their own learning. One of her goals in instruction is to use a student-centered approach: working together, solving problems using students' everyday experiences, organizing a class as a seminar characterize what happens in Susan's class. She indicated during our post-observation interview that as a teacher educator, she feels that she should encourage students to think and question things that they come across in their learning. In other words, she wants to create a classroom where questioning, reasoning and justification are encouraged. She is trying to make a difference in the way prospective teachers are taught, and ultimately, in the way students learn. Susan recognizes a need for change, for she believes that if she does not teach her students to teach differently, "they will leave the university without knowing

ho

ast

af

bl

N

cr

m

v

2

how to do this, and would also run into problems when they want a job because they do ask them what they know about the new ways of teaching in the interview.”

The new ways of teaching have been laid down by the new Ministry of Education after decades of apartheid education where originality, creativity, and critical thinking for blacks were suppressed in an effort to uphold white supremacy. The guidelines from the Ministry of Education provide a philosophical and an organizational structure for curriculum initiatives at all levels. The learner comes first, with his experiences taken into consideration when teaching. Teachers plan their teaching around essential outcomes which includes skills and values such as being able to collect, organize and analyze information, to think, to make responsible decisions, to communicate effectively, to solve problems, to work in groups as well as independently. To achieve the above skills and values, teaching should be learner-centered, with emphasis on groupwork and developing the ability of people to think critically, analyze things for themselves, and do research.

To understand how Susan changed from conventional teaching to a student-centered approach to teaching, we must first begin with an understanding of the conceptions she originally held about teaching and learning and proceed from there. It is these prior beliefs about teaching and learning that we need to know and see to recognize how much she has changed.

## **Susan's Experiences as a Student and Teacher**

### **Her Experiences as a Student**

As a student, Susan's learning was characterized by a culture of memorization from primary school through teacher college and undergraduate study. Her teachers in



print

did

abs

w 2

ex

Ev

th

w

p

|

w

to

T

as

ap

se

of

stu

primary and secondary school taught without “emphasizing practical things.” Learning did not include “student’s own experiences and viewpoint, and as such it was very abstract.” Memorization became the most significant way of learning to Susan and this was more evident when she described her primary and secondary school teachers as excellent because they “gave us facts to memorize for the tests and examination.”

Excellent to Susan meant “those teachers who spoon-fed us, for example, those who went through the syllabus with us quickly; those who were thoroughly prepared; and those who encouraged us to memorize.”

Susan did not see any difference between how she was taught during her teacher preparation and her days in primary and secondary school:

The methods were very traditional and we were taught the same way throughout. The college curriculum was overloaded. I was taught methods of Teaching geography the way my primary and secondary school teachers taught me. Everything was teacher-centered.

From her primary school (elementary school) through to the college of education, where she took her methods of teaching, information was passed on to Susan who, together with her colleagues, was viewed as a passive recipient of the body of content. The teacher-centered conception under which she was educated viewed teaching mainly as presenting information. Susan asserted that she was taught general teaching methods to apply in every subject. What characterized teaching and learning in primary school, secondary school, and teacher’s college for Susan was a culture of memorization and lack of “emphasizing practical things.” She held that learning was very abstract and that students did not use their own experience— the “practical things”— to understand what

they were

obedience

S

teacher

memory

S

S

S

S

S

S

What n

with pa

about t

empha

haphaz

student

S

the tes

only w

did m

studen

she w

they were learning. Susan grew up in a school system that rewarded passivity and obedience rather than self-directed learning.

Susan did have a role model during her undergraduate study. Although this teacher educator stood out for her, she expected Susan's class to "commit facts to memory":

She was systematic in her presentations, and if you did your work, she would give you the marks you deserve. She gave us pamphlets with many examples. Other teacher educators were not systematic in their presentations, leaving us very confused. They would expect you to write on issues that they never emphasized. We were unsure of how they expected us to answer questions in the examinations and tests. This made me to memorize even more.

What made Susan's teacher to be different from others was that she provided her class with pamphlets, which had examples, making memorization easier. She complained about the unfairness of other teacher educators who expected her group to know what to emphasize without being taught. Her complaint stemmed from the unsystematic and haphazard lessons most of her teacher educators were presenting, for they did not expect students to understand but to memorize.

Although Susan's teacher educator gave the class a lot of materials to supplement the textbook, she was not different from others who expected students to memorize. Not only was memorization a way of learning during her undergraduate study, but those who did memorize, according to Susan, got high grades. Based on her own experiences as a student, Susan learned to see teachers as authoritative conduits of others' knowledge and she was not encouraged to build her own knowledge or value her own ideas. But

s

s

To

she

bec

that

year

back

thou

class

*Susan*

those

teach

school

consi

the q

struggling to explain the supremacy of memorization at the undergraduate level, Susan said:

...Like in any black university, memorization was the order of the day. Maybe it was because we were too many in class, and maybe it was because it was a poor university with no resources. I got my bachelors degree from a historically black university.

To Susan, there could be only two possibilities why memorization was emphasized when she was doing her undergraduate program: her poor university which lacked resources because of being a historically black university; and classes which were so overcrowded that professors could not teach them well. These points are worth noting because some years later when Susan returned to teach at the same university where she got her bachelors degree these factors did not seem to affect her that much in her teaching even though she had many students. It was at this university with high numbers of students in class where Susan was trying to change her practice.

### **Susan's Experiences as a Teacher**

Susan taught for four years at high school and her teaching methods resembled those that were used by her teacher educators at the teacher Education College. Her teaching also resembled how teaching was modeled to her at primary school, secondary school and undergraduate level. This view of teaching, according to Susan, was consistent with what was still purported as good teaching. Teaching was characterized by the quiet, orderly classroom where the teacher was in charge while she or he transferred

her or his knowledge to the students (Klein, 1994). Courses at the university and teacher preparation reinforced this notion:

I applied these methods when I started teaching—teaching that is mainly teacher-centered. I had the experience that when you teach you must give facts and not allow much time for discussions in class because it would be a waste of time. The skills I gathered from my STD (Senior Teachers' Diploma) were only teacher-centered. My university did not emphasize different skills either. That was all I knew.

Susan's actions were grounded in what she experienced and what she came to know.

From the above quotation, we saw that Susan's methods instructors at Teacher Education College employed similar techniques of teaching as her university professors. As such, she could not use alternative methods of instruction because of lack of experience with them as a student. What Susan learned at all levels of education was passivity and accepting knowledge as given. The conceptions of and orientations to teaching that her teacher educators held had an important influence in the quality of learning that Susan received.

The concern for covering the syllabus in order to prepare students for their examination, in fact, drove her teaching:

I would go to class, lecture, and leave without really finding out if students understood. I was more on the covering of the syllabus to prepare my students for their end-of-the year examination than teaching in ways that students would understand. Teaching this way was boring, but there was nothing I could do since that was all I knew at that time.

Her teaching resembled the typical routine that she was used to: lecture, assignments, tests, and examinations. Preparing students for the end of the year examination was very important, especially for those grade levels which had their examinations set externally. A high failure rate in those grade levels meant that the teacher did not teach well and as a result he or she could not be trusted with students' future. Susan did not want to disappoint her students or their parents, neither did she want to ruin her career. Also, the quote above showed the importance of memorization in Susan's teaching. Her goal was to help student get through their examinations. Her reason for not trying to find out whether or not students understood what she taught was based in her concern about not wasting time for syllabus coverage and time for memorizing. In this way, Susan recognized her students as an audience to be lectured to rather than as individuals to be involved in their own learning. Her students memorized concepts without understanding.

Susan mentioned that concepts in Geography were hierarchical in nature, and acquiring prerequisite concepts made learning of a given area of subject matter possible. Susan gave an example of a pattern, distribution, and scale, which required prior understanding of the concept of space. For subject matter to have real meaning to students, it should be able to find enchorage on the existing structure of knowledge. As a result, Susan said that perception of concepts was of significance in that it made students understand what they were taught. Many students were able to pass the examination without understanding concepts but they could not apply the knowledge to novel situations. She saw the role of a teacher as standing in front of the class and giving information to passive students, who would learn it by heart in order to write it as it was during the test.



me

tea

"a

En

w

an

un

af

di

|

S

S

S

S

c

ta

/

A

Susan wanted to change her teaching because she was dissatisfied with her methods of teaching, which were the same year after year. She knew that methods of teaching in English-speaking universities were different and better. Susan wanted to be “adventurous” and do something new. She therefore set out to do her senior degree<sup>1</sup> at an English-speaking university, which was then admitting black students. Susan said she wanted to experience the type of education that would liberate her thinking by going to an English-speaking university rather than a black university. She could not go to this university before because it was expensive, but when she started working she could afford to take herself to the university since she wanted to experience a good and a different type of education.

### **Susan’s Turning Point in Teaching**

#### **Susan’s New Practice**

When I went to Knox University for my M-ED, I did not know any other way of teaching geography except teaching facts for students to memorize. But I became exposed to the course itself (Geography) and started to see how it could be taught effectively and practically in ways that could be enjoyed. I did not know how to teach certain sections, and by attending this university I started seeing and learning geography in a very practical and simple way. I started learning geography in a practical way at graduate level when I was doing geography in education.

Susan made this statement at the beginning of our first interview, and it became very clear to me that her graduate study had a profound effect on the way she taught, for she talked about it every time she was interviewed. She learned teaching differently in the

---

<sup>1</sup>A senior degree is any degree after a bachelors degree

supportive environment of her professors and fellow students. Susan pointed out that her professors “were eager to listen to us, guide us and ready to help us all. There were lots of seminar presentations and workshops.” Her professors created opportunities where students shared and contributed immensely to lessons. By so doing, they empowered Susan to take responsibility for her own development and acknowledge students as partners in educational growth.

Going to Knox University made Susan aware that there were other ways of teaching that were more interesting than rote learning. She indicated to us before how boring it was to teach to the examination. At Knox University, she discovered that education that was geared to rote learning was partially helpful but that the education that immersed students in understanding what they were learning; that took into consideration the students’ existing knowledge, interests, and their natural curiosity to learn to investigate made sense. Susan also discovered that acknowledging students as partners in learning was the most powerful way of learning. She held that Knox University taught in methods which were much different from the Afrikaans-speaking and black universities.

When Susan described being “exposed to the course itself” in the quotation, she meant acquiring “more knowledge and skills to run the course. I gained more confidence than I had from the training college of education.” Her Geography learning at graduate level comprised observing the environment, studying it with the help of practical objects from the environment such as rocks, rivers, and researching information from the library. Susan emphasized that she saw for the first time how certain sections in Geography, such as climatology, which were difficult for her to teach, could be taught. She started to see the relevance of her own experiences in learning, and felt that a plethora of useful

int

to

be

and

be

pe

te

kn

co

kr

te

an

ot

R

be

wa

str

cu

ch

inc

information was being left out in her learning. Studying geography in that way helped her to acquire a deeper understanding of different aspects, which she did not understand before. These experiences further contributed to her acquiring both content knowledge and pedagogical content knowledge, which, as you recall from the opening quotation, she believed she did not have.

Shulman (1986) emphasizes the importance of content knowledge and pedagogical knowledge to good teaching and student understanding. He suggests that teaching expertise should be evaluated and described in terms of pedagogical content knowledge (Shulman, 1986, 1987, 1988). Pedagogical content knowledge (PCK) concerns the manner in which teachers relate their subject matter knowledge (what they know about what they teach) to their pedagogical knowledge (what they know about teaching). The teacher finds multiple ways to represent the information, such as analogies, metaphors, examples, problems, demonstrations, and classroom activities. In other words, PCK allows teachers to transform knowledge so that others (Shulman & Ringstaff, 1986; Shulman, 1987; Wilson & Shulman, 1987) understand it.

Susan had little content knowledge and pedagogical content knowledge (PCK) before her exposure at the graduate level due to her own experiences of what learning was. Knowledge about the subject matter she was teaching and knowledge of specific strategies for teaching a particular subject (PCK) was critical for reforming the curriculum. Therefore, Susan would not have been ready to engage in any meaningful change in her teaching before being exposed to more knowledge and skills, as she indicated earlier on.

sh

th

fo

at

u

p

l

e

Susan made comparisons of the ways of teaching at Knox University with how she taught her students. As she reflected back in her earlier years in teaching, she doubted the effectiveness of her own approach to teaching before she went to Knox University, for “most students forgot what was taught immediately they finished taking their tests and examinations.” She asserted that she used approaches of teaching that were only useful to “allow students to go through their examinations or tests well.” Susan was prepared to learn these new ways of teaching since they were very stimulating in her learning compared to her own teaching approaches, which she said were boring.

Further, she provided an insight into how effectively and practically geography could be taught:

The course empowered me in such a way that I could try anything that I felt was relevant to teach the student teachers rather than to stick to the syllabus. I could engage my students in field work outside the university premises, teaching them through examples that were next to the classroom, for example, sand pit, making models etc. I could relate my teaching with real life and explain concepts in such a way that it could make sense to me and my students.

From the quotation above, empowerment to Susan came with knowledge of different ways of teaching and being exposed to a course that was designed to help students to become skillful knowledge producers rather than skillful knowledge receivers (Holt-Reynolds, 1991). The notion of empowerment had to do with Susan taking charge of aspects of her life over which she had been prevented from gaining access in the past.. Duffy (1994) took the issue of empowerment further by saying that teachers should not be told what to do, instead, they should be empowered to decide for themselves what must be done. He explained that empowerment in this sense would mean, “investing in

the m

follow

comes

after his

Univer

could t

to be d

teachin

Univer

beliefs

new w

would

teach

advoc

prepe

learn



the minds of teachers instead of investing in the sets of directions for teachers to follow”(p. 596). Koop (1994) reiterated these views and further said that empowerment comes with commitment and action, a position that was reflected in Susan’s own teaching after her graduate study at Knox University. Approaches to teaching used at Knox University seemed to have replaced in Susan’s mind the traditional approaches, since she could try anything she felt was relevant to students’ learning. She wanted her classroom to be different from those she had sat through as a student, and to replace her traditional teaching with something new. Susan experienced alternative models of teaching at Knox University, such that she understood how they differed from her prior experiences and beliefs. Since her learning geography with understanding was made possible with the new ways of teaching, Susan was not afraid to use them. She held the view that students would learn more from teaching that embodied the new and more effective strategies.

After going to Knox University, Susan preferred a learner-centered approach to teaching, a kind of teaching that aligns with what reformers in South Africa were advocating but for which her experience as a student prior to graduate study did not prepare her. In the student-centered approach, students were more involved in their own learning and the teacher educator’s duty was to facilitate the learning process:

I now believe in student-learner centered approach, and I know that what students are learning they will remember for a long time because they are active participants in their own learning. At secondary school I did not divide students into groups. I had no confidence when I started to teach. I guess I was not sure of which methods I could use to make students’ learning experience long lasting well after writing their examination.

After the Knox University experience, Susan started using a variety of strategies in her teaching such as team teaching, group work, fieldwork, project method, and seminar presentations. This was because she had gained confidence in her own teaching through the empowerment, which came with knowledge. Implicit in Susan's case was that without knowledge, it was not easy to become confident about what one was doing.

Further, she provided insight into what it was the faculty did at Knox, which had a very great impact on her teaching:

My professors gave us readings in advance to prepare ourselves for discussions in class. This turned out to be very helpful to me because I was able, together with my colleagues, to take an active part in class. They encouraged us to do critical analysis of those readings. You were not expected to memorize the readings, but apply them to your everyday life situation.

Her classes at Knox were so interesting and challenging that Susan did not want to miss any of them since she could miss out on exchanging ideas, learning new things, making connections to one's experiences which one never thought would be relevant to learning. She also highlighted the importance of modeling to learning new ways of teaching. She saw firsthand how one could use the new strategies in class. That helped her to contrast the new practices with her own practices before she went to Knox, in an explicit effort to find an effective approach to teaching of the two. She says,

They (professors) modeled the use of varied instructional strategies. For example, students were asked to form groups and were given a discussion to complete together. Following the activity, each group had to report back their responses to the readings and a discussion followed. At the end, professors summarized the groups' responses insightfully.

were c

The fo

The la

explai

Her d

(1990)

aim is

issue.

synth

teachi

view

expla

was v

judg

multi

how

From the above quote we can distinguish between two types of discussions which were common in Susan's graduate classes: guided discussion and reflective discussion. The former was intended to develop student's understanding of the concepts and ideas. The latter was intended to help students to synthesize and evaluate ideas. This explanation is supported by what Susan said later:

There were times we would go to class and the professor gave us a guide on what to discuss. We discussed those issues at length, analyzing ideas in order to understand them. At other times a professor would ask us to critically evaluate some ideas or issues.

Her description of what used to happen in her graduate class is in agreement with Wilem (1990), who says that when a teacher used a guided discussion in his or her teaching, the aim is to develop students' understanding and analysis of concepts, a topic, ideas or an issue. But with a reflective discussion, a teacher wants to help students to evaluate and synthesize information, ideas and opinions.

According to Susan, students' talk dominated in a class where the method of teaching was discussion. This way of teaching helped Susan to develop the ability to view situations from "multiple perspectives," the ability to "search for alternative explanations," and the ability to "use evidence in supporting a position or decision." This was what Kitchener and King (1982) called the characteristics of mature reflective judgment. Not only was Susan able to buttress her argument using evidence from multiple perspectives, but she was also able to reflect on this new way of teaching and how it stood in stark contrast to "what I believed in before about teaching and learning.

From

it."

"exte

in cla

affec

stude

thos

how

refl

lear

me:

pr

pl

pr

R

a

From this experience, I realized that it could be done anywhere, but it takes courage to do it.”

Emphasis was also made on working independently. That came through an “extensive individual project which we had to spend days doing and finally presented it in class before turning it in to our professors for a grade.” Her belief was that the most effective teaching was self-teaching. “Learning should stir up the self-activity of a student, and he or she should learn from his or her own experience and efforts, not from those of the teacher.” Susan benefited from her graduate school professors who modeled how to teach in ways that involved students and professors in dialogue, inquiry, and reflection, which in turn influenced change in her own teaching and how she viewed learning.

Reflecting on what the experience at Knox University meant for her and the new meaning it brought into her teaching, Susan said,

I feel I have learned something that I’ll value for the rest of my life. Teaching had become boring before I went to Knox, because I was teaching the same way throughout. Once I discovered these strategies of teaching, I became confident about my teaching and myself. I’m trying to apply my professors’ ways of teaching and I am also trying new things on my own.

It would be fair to infer that Susan’s change came about when alternatives to rigid presentation of her lessons were concrete, vivid and detailed enough to provide a plausible alternative. An opportunity was provided for Susan to consider why new practices were better than the more conventional approaches. Feiman-Nemser & Remillard (1996) spoke to this issue when they said that changing the beliefs of educators about teaching and learning would be dependent upon how educators identified the

dis

Su

a s

tal

discrepancies between their viewpoint and those underlying new visions of teaching.

Susan recognized those discrepancies in the way she learned her materials while she was a student, how she could not remember some information she learned, and how she taught her students:

It did not take long for me to realize that if you expose your students to different and concrete ways of learning geography, they enjoy and understand it without memorizing. I loved geography but somehow I knew that I was not confident of my teaching. I lacked information on how to teach it without making students memorize it. It was very abstract to me yet it is a very practical subject. The effect of memorizing is clear. Students could not remember some of the information after the test because they never understood it. I did not know how to simplify geography to make it easy for students to learn.

It was striking that Susan kept on pointing at her lack of pedagogical content knowledge. She was not able to encourage students to discover or invent meaning without knowing what Griffin (1996) termed the intellectual territory- the content knowledge she was to teach.

I interviewed a colleague of Susan at her present job. Her colleague had been trying to change her practice before she took up the administrative job in the department. When I asked her about Susan's teaching, she commended her for doing well in her teaching through the new strategies, although she confirmed that using the new strategies in teaching was time consuming:

Susan is doing her best to use the new methods of teaching, and that is why you find her here most of the time preparing. The way she teaches is demanding on the lecturer because you have to plan something that will involve all students. I know this because I used to do it. Students were not happy with me because I



used to give them a lot of work and, the rest of my colleagues were not teaching them that way. Some of my colleagues used to support the students in their complaints about me. Susan seems to be doing well in her teaching using the new teaching methods.

Susan seemed committed to her way of teaching, even if, according to her colleague, the new methods of teaching were demanding and time consuming.

Her approach to teaching and how she viewed students changed since her learning experience at Knox:

When I came back from Knox University, I was and am still very confident about my teaching. I use a variety of teaching strategies now. When I came back I was able to prepare worksheets, conduct fieldwork, make students work in-groups and have more discussions in my class. I know now that I can use fieldtrips to teach differently. I am able to do things I was unable to do before such as involving my students in thinking and reasoning.

### **How Susan Describes her New Practice**

How did Susan describe her teaching? In this section, I describe Susan's new practice as she related it during the interview and from the observation I made in her classroom. This section is intended for us to learn what Susan is doing in class in relation to the reform and how students are responding.

There were three themes, which ran through what Susan described as her new practice: students' participation and working on their own and working in groups, independent thinking; and confidence.

#### **Students participation in the learning situation and working on their own**

and als

inform

concep

Just a

want

to tel

acco

wor

stud

diff

cle

like

Susan said she encouraged her students to be active participants in their learning and also to work on their own. Acquiring skills such as organizing and analyzing information needed was important to her students' learning. She held this particular conception of students that influenced their learning:

Students should be able to work on their own. They should be able to choose a topic among the given topics, and work on their own. When teachers spoon-feed students, they do not learn. Researching information on their own not only make students understand what they are learning about, but it also allows them to learn skills of doing research. If meaningful learning is to occur, students should be involved in their own learning. They should not accept things as they are but they must try to think about and question those ideas.

Just as much as she was empowered through the knowledge that she got from Knox, she wanted her students to be empowered too. Susan wanted them to speak their own voice, to tell their own story, and to apply the understanding that they arrived at to action in accordance with their own interest.

Because Susan believed that students' participation in their own learning and working on their own impacted their learning, she also gave them "individual or self-study project to do." This was done, according to Susan, through giving students different topics to study.

The significance of students' participation in Susan's teaching was made very clear when I asked her before the observations if there was something special she would like me to observe in her class. Her response:

I specifically want you to watch the students' involvement in class. They are many but what satisfies me in my teaching is that I've instilled in them the

importance of active participation. That really helps them to learn. They are critical about what you say to them and they always want to know more about it.

When I went to her class, a group of students were presenting what a project method was. One student demonstrated what their group was discussing. When it was time for discussion, students were critically evaluating information and demonstrating understanding of what was offered in the lesson. It was interesting to see how most of the students challenged questionable and controversial information. For example, one student asked how the project method was useful in encouraging learner-centered. Students discussed how this method would make pupils participate and got involved in their learning process by working in a group. There were a few who shared their dilemmas in using this method. While they saw the benefits of the project method in learning, they also saw some disadvantages of using this method in an overcrowded classroom. What was intriguing with this class was that students were overcrowded, but they were using new strategies of learning.

### Working in Groups

Connected to the issue of students' participation and working on their own was Susan's belief that students should work in groups since "where there are many people, there are a lot of ideas." According to Susan, students working in groups promoted experimentation and exploration, different ways of looking at problem situations, and, ultimately, better understanding. In order to change students learning "from passive, rote learning to creative learning and problem solving," one of the vehicles Susan used was for students to work in groups. She engaged in structural alterations, which involved changes in formal teaching arrangements to fit her changed practice. To Susan, when

students w

problem s

O

herself, sh

confidenc

anything

because t

that work

develop

reflective

D

students

she used

then cal

was to b

was, Su

she al

students work together, it provided opportunities for them to share different strategies for problem solving and to puzzle together over problem situations.

One other reason why Susan wanted her students to work in groups was that, like herself, she wanted them to share knowledge and experiences so that they “can develop confidence in themselves.” She explained that most students in a big group did not say anything, but when they were in a group, “they become free to throw their ideas around because they are relaxed.” Schram et al, (1988) supported this view and went on to say that working in groups provided a context for students to trust their own thinking and to develop confidence in their abilities. By using groups, Susan wanted her students to be reflective and confident prospective teachers.

During my observation, Susan was about to undertake a field trip with her students. Field trip was one other area where she used groups in her teaching. Earlier on, she used allow students to pick up their own groups and also pick up their leaders. She then called all the group leaders to her office to discuss each group’s tasks, namely, what was to be observed and how it was to be recorded. Stressing how essential group work was, Susan said,

When students go for fieldwork, they also work in groups because, first, I have many students, and second, I want them to understand the concepts we are learning through discussions in their small groups. I call the group leaders and teach them concepts that we are going to cover in fieldwork and let them go and teach others. As facilitator, I move from one group to another adding. When we come back the groups make reports about what they learned in their group.

Because Susan taught mostly by giving work to groups so that they could discuss, she allowed students to choose a coordinator for the group and a secretary to record the

discussion. Group leaders helped Susan in their groups by posing questions for discussions. When asked what the rationale behind these structured guidelines was, Susan said that she wanted students' discussions in their groups to meet specific learning objectives: to emphasize critical thinking and systematic investigation.

The ability to collect, analyze, organize, and critically evaluate information, and to work effectively with others in a group or team were some of the critical outcomes stipulated by the South African Qualification Authority (SAQA) for teachers to foster in their teaching (Malan, 1997, pp.44-45). Stressing these skills put Susan on par with the requirements of the new curriculum.

When I observed Susan, I was struck by students who were at ease when presenting their research on the project method. They seemed to be very familiar with this approach because they were very relaxed. Students who met in student-led discussion groups for the first time would be unsure of what was expected of them and how to proceed, primarily because they had never observed how a group could run effectively. Susan's class did not have such difficulties. They looked like an experienced group, which had presented before. Presenters took their positions at the front of the class to serve as members of a discussion group. This group had a leader. There was a degree of congruence between the expressed goals of the course and the quality of discourse between prospective teachers and Susan during my observation, namely, to be independent thinkers, to have confidence, to foster students' originality in thinking.

Independen

Sus

to teach w

I w

hi

en

tha

Susan wa

positive a

were give

resource

goal was

meant us

environn

constant

thinker i

her stud

student

out the

believe

unders

that en

encour



### Independent Thinking and Confidence

Susan indicated that she encouraged her students to be independent thinkers and to teach with confidence:

I want my students to be independent thinkers, to teach with confidence, to be highly motivated in geography; to have positive attitudes in their own environment and help students learn without difficulty. I also want them to know that teaching is not fixed, they can try out something new.

Susan wanted her students to learn without difficulty through their surroundings. A positive attitude towards the students' environment could only be achieved when they were given the opportunity to interact with it, and see for themselves what a great resource for learning it was. This was what Susan was trying to do in her teaching. Her goal was to make geography simple and not abstract, as she had indicated earlier. This meant using what was immediately available to her as resource. She relied on the environment most in her effort to help students to understand the world around them. She constantly explored the teaching and learning possibilities around her. An independent thinker like Susan had confidence because to her knowledge was not fixed. She wanted her students to abandon the notion of subject matter as fixed, ready-made and outside the student's experiences.

It was Susan's conviction that experimenting with many ways of teaching brought out the best in a child since there was a plethora of materials that surrounded them. She believed that the environment offered Geography teachers rich materials to use in understanding geographical concepts and encouraged students to discover opportunities that encouraged knowledge, ownership, critical dialogue, and reflection. Susan encouraged students to think and to question the world around them and opposed

teaching a

teaching v

teacher ed

believed t

facilitating

This idea

South Af

A

trip and

on what

being on

about h

in turn

about r

evalua

learne

do ne

encor

her in

**Susa**

teach

teaching as fact telling or as a process of “imparting knowledge to students.” Susan’s teaching went “against the grain” (Cochran-Smith, 1992) of traditional teaching and teacher education. She allowed her students to bring in their experiences because she believed that those were the starting points of inquiry and learning. She was committed to facilitating her students’ growth so that they became independent thinkers and inquirers. This idea was congruent with the goals espoused by the current educational reform in South Africa that was discussed earlier.

After every field trip, Susan asked her students to write a critical evaluation of the trip and she got evaluated as well. In this way, Susan was training her students to “reflect on what they are learning and how they are learning it. I do not want field-trips to end up being one of those outings where students do not learn.” Susan structured the evaluation about herself in such a way that she learned something about the course that enabled her, in turn, to change her teaching. In the evaluation form, she asked students to comment about the assignment that they were given to do in the field. Some of the questions in the evaluation form asked if items in the worksheet were clear or ambiguous; what they learned: how helpful the teacher educator was in the fieldtrip; what they would like her to do next time during the field trips; and how they wanted field trips to be conducted. She encouraged her students not to write their names, so as to allow them to be frank and help her improve her teaching.

### **Susan and Students’ New Role**

During my observation, Susan and students took up new roles, which encouraged teaching and learning to take place in different ways. A group of students were presenting

the project

eight groups

students in

method. The

objectives

definition

Th

the project

organiza

applicati

and the

the best

South A

method

teachi

metho

a new

teach

ackno

raise

import

things

the project method. Susan's methods class had 84 students and she had divided them into eight groups of ten each with four groups having eleven members. There were eleven students in the group presenting and each had a sub-topic to present about the project method. The group leader was responsible for ensuring that his group reached its learning objectives. As a way of introducing the group's project, the group leader gave various definitions of group project.

The students shared in the presentation of the following subheadings: definition of the project method; types of the project method; characteristics of the project method; organization of the project method; disadvantages and advantages of the method; the application of the project method in the classroom; significance of the project method; and the conclusion. The last presenter--the leader-- indicated that the project method was the best method to use if prospective teachers wanted to "prepare students for the new South Africa and not follow what Paulo Freire called the banking concept of education."

The students raised questions, concerns, and constructive criticisms of the method. They were concerned about lecturers who did not teach the way Susan was teaching, such as teaching through the project method. One student asked how the method would be accepted since the numbers of students in class were growing and how a new teacher would manage to teach with that new method at a school where most teachers would still be using the traditional ways of teaching. While most students acknowledged the benefits of working in groups when doing the project method, some raised questions of relevance of this method to the examination, "which is still considered important as an indicator to learning. This is a good method, and we are learning a lot of things, but examinations will limit our abilities to use it."

The prospective teachers were concerned about organizational and time constraints, which would limit their ability to use instructional practices, that they found useful for themselves. They were thankful that “we are learning geography and how to teach it in a very simple and exciting way. If this reform is serious, then we are the best prepared teachers the Ministry of Education could ever get” (prospective teachers). These prospective teachers were indeed aware of the fact that Susan was preparing them differently than their instructors in other methods courses. (They were supposed to take two methods classes to qualify as teachers).

Susan acted as a facilitator, asking challenging questions to make them think. She relied less on direct instruction and more on orchestrating discussion. One of the challenging questions she asked was what if they (students) were at a school where they were the only ones who knew how to use the method, would they stop using it because of the pressure from their colleagues, or would they go ahead and use the method because of its benefit? She ended the discussion by weaving in loose ends of the discussion, pointing out important issues raised in the discussion and bringing in the relevance of the project method to student-centered approach that the reform wanted schools to adhere to. She left the class with a further problem for them to do, either individually or as a group.

In this presentation, it was important to note that students were also asked to find out whether or not this method could be used to accomplish the requirements of the new curriculum. Preservice teachers showed familiarity with the new curriculum that teachers were required to implement in their teaching and also showed understanding of the direction of change. The following stood out from the students’ presentation as a list of

why the p

list of ide

- Studer

ideas

- The p

- Studer

findings

- Studer

- The

wh

- Stu

be

- T

in

an

th

le

t

- T

d

- T

h

h

why the project method should be used to teach differently. Students came up with this list of ideas about the project method:

- Students interact cooperatively rather than being selfish about knowledge. They share ideas and help each other complete the given task.
- The project method develops critical thinking.
- Students are able to criticize each other's ideas as they share views about their findings.
- Students develop the ability to solve problems they encounter independently.
- The project method helps students to gain management and organizational skills, which are important in life.
- Students get more involved in searching for information about the project. They also become more innovative in their own learning.
- The method is learner-centered, meaning that students are the ones who are mainly involved in the research and the teacher is there just to monitor the progress. Students are given the opportunity to look or explore new information and new discoveries on their own. This is what the Outcomes-Based Education System encourages. Students learn on their own, solve problems they encounter their own way, not the way the teacher wants.
- The project method also improves students' language ideas, logical layout, and their development as critical thinkers.
- The project method is one of the best teaching strategies which should be used in the present days, especially in the new system of education or the Outcome-Based Education. This is because the project method encourages creativity, critical



thin

intr

S

understa

to see ho

reasonin

direct co

turns to

student

intention

that oc

Stude

Preso

Stud

The

bei

stu

thinking, independence among students, so this method is applicable to the introduced system of Education.

Susan did not dominate the discussion, but students did and that helped them understand what they were learning about. When question time came, it was interesting to see how determined some of the students were in asking questions that needed a lot of reasoning. One presenter mentioned that one shortcoming of the project method was that direct communication between the students and the teacher was reduced. Students took turns to ask why the group believed that the lack of direct communication between the students and the teacher was the main weakness of the project method because the intention of the method was to minimize teacher talk. This was an example of a dialogue that occurred in the classroom among three students and a presenter:

Student. 1:     What do you mean by communication is reduced between the teacher and the students in this method when you've just said that this is a learner-centered approach? Is the teacher not helping them according to how this method works? Are students not learning?

Presenter:     Yes, students are learning. I wanted to show you that the teacher is not playing a big role here and that is a disadvantage.

Student. 2:     How can this be a disadvantage when the method is intended to reduce teacher talk that we have had since Bantu education and allow students to learn actively by being involved in their learning?

The above questions indicated the maturity of students in critically examining what was being said. When one of the presenters contradicted herself with the answer she gave, students (students 1 and 2) were critical about the answers that she gave. The fact that the

answers w

questions i

able to hel

contribute

As

asked to r

presenter

to "believ

students

Presente

Student

Student

Student

Preser

Stude

answers were not full shows that presenters were not prepared for the maturity of the questions that were asked. The students were so clear about the method that they were able to help the presenter. They did not just accept facts as they were presented, but they contributed to the discussion by critically evaluating what was being said.

As the presentation went on, more challenging questions from the students were asked to the presenters, and one could sense how determined students were to have the presenters rectify the mistake that the textbook writers made, which the presenters came to “believe without thinking.” This is the discussion that followed the last question by students 1, 3, and 4:

Presenter: In every method, we must look at the weaknesses of that method so that people can know it.

Student 1: It does not mean that we must agree with everything even when it does not sound right like this one. (Laughter)

Student 3: You have told us that this method is learner-centered, and that it must be used because it encourages students to think, to be creative, independent etc. You even said that in this method, a teacher’s job is to be a coordinator. If we take what books are saying on teacher’s involvement without thinking, then we will be wrong.

Students 4: The books where you got this information are written by human beings who can make mistakes like we are pointing now. The main objective of this method is to do what you say is a disadvantage.

(Laughter)

Presenter: But...(more laughter)

Student 5: Let us just agree on this one that you did not look at it well. We are saying that your presentation has some contradiction when it comes to the issue of teacher’s involvement, and you still do not accept it.

In

disagreeing

method.

role in te

point Sus

whole cl

express t

came to

thought

discuss

given a

teacher

orienta

direct

Mean

their

that v

maki

unde

that

pup

In other words, student 5 made sure that the presenter knew that students were disagreeing with her when she indicated that a teacher would not be active in the project method. The presenter stood her grounds, and argued that if a teacher did not play a big role in teaching, it was a disadvantage. Students started to argue with her, and at that point Susan intervened. She turned the challenge into an issue to be discussed by the whole class: "Let's see how the rest of you react to this." She encouraged students to express their opinions or feelings respectfully, which they did. Susan and her students came to a conclusion that the students should take issue with those authors who they thought were contradicting themselves in what they wrote. The emphasis in the discussion was on critical evaluation and learning that should not take knowledge as given and unproblematic.

The issue of taking knowledge as given and unproblematic is a critical issue in teacher education, especially when students are encouraged to have an inquiry orientation.

The argument that was advanced by student 3 and 4 seemed to point towards the direction in which Susan wanted her students to go: that knowledge was not fixed. Meaning was not validated by expert opinion but by the connections students made with their lives' experiences. This idea was supported by Griffin (1996) who went on to say that when knowledge was perceived as not fixed, meaning was seen as personal sense-making. He maintained that existing text was used to provoke curiosity, extend understanding and create connections. Reid (1991) also addressed this issue by saying that if prospective teachers perceived their work in classrooms as controlling content and pupils, then they would act as if knowledge was fixed, with its authority lying in the text

or the te

connecti

strategic

opportu

not agre

method

argumen

behave

created

change

with st

relatio

learned

about

only

class

intro

to op

took

disc

brou

or the teacher. But if they perceived knowledge as open-ended, they would look for connections to other pieces of knowledge and would look for powerful teaching strategies. Susan, through using the new strategies of teaching, offered students opportunities to discuss problems and contradictions, and to question things that they did not agree with. In my observation, there were multiple viewpoints about the project method articulated and Susan encouraged that as long as students supported their arguments.

The appearance of changes in practice in Susan's class was evident in the way she behaved with students, the kind of probing questions she asked, the opportunities she created for them to discuss and question by giving them projects to do and present. Her change in teaching was indicated by changes in the conditions under which she interacted with students. She adopted and used new pedagogical techniques such as new authority relationships with students. She acted as an equal to them, that was, she acted like a learner who was prepared to learn from them. At the same time she asserted her authority about the direction the teaching and learning situation went. When I observed her, the only three things that could distinguish her from her students was at the beginning of the class when she made sure that the other groups knew their presentation dates, when she introduced the group that was presenting on that day, and when she intervened at the end to open up a discussion. She sat in one of the desks with a student, and like most students, took down notes. She took part in asking questions and when it appeared that the discussion was becoming emotional, she established her authority. As a facilitator, she brought the discussion back into focus.



Wh  
still taught  
to learner-c  
her convic  
understand  
as a power  
teachers in  
size and cl  
educators.

Wh  
was very i  
to them, he  
confident  
described

It  
stu  
th  
m  
pr  
st

She was

I  
le  
a  
n  
te

What was more striking was that Susan had 84 students in her class, and yet she still taught in a learner-centered approach. This could only indicate that her commitment to learner-centered approach did not hinge on how many students she had in class, but on her convictions about the appropriateness of the method in helping students to learn with understanding. Many teacher educators were often convinced that a large class size acted as a powerful barrier to changing their curriculum. The case of Susan with 84 prospective teachers in class was an example of the fact that the relationship between changes in class size and changes in teaching and learning were mediated by the skills of teacher educators.

When I asked her at the end of the lesson how she thought the lesson went, Susan was very impressed by the way her students were able to reason out what was presented to them, how the presenters researched and argued about the project method. She was confident that the project method had strengthened the students' thinking skills. She described the scene in the classroom as an indicator of learning productively:

It is good to watch as students present their findings. It is more interesting when students show you their understanding of a concept through demonstration. When the students did their presentation, they showed their understanding of the project method by showing how it could be used in class. I think the discussion of the project method has assisted the students to think critically about the method, its strengths, weakness and how it can be used in teaching differently.

She was confident about her teaching too:

I think they can see what the difference is between teacher-centered approach and learner-centered, and I believe they are benefiting from the learner-centered approach because they are actively involved. They are aware of the changes I'm making and how I'm aligning my teaching with the reform. I'm preparing them to teach in the future, using these new ways of teaching.

Susan was

opportunities

Asked why

she felt that

familiar with

I had

the course.

lecturers' to

getting help

lecturer is

debate issues

She

on

ou

th

sh

The way

she had

opportunities

educational

be involved

new approach

the reform

Susan was not just experimenting with students' lives, but she was also providing opportunities for students to encounter geography in accordance with the new reform. Asked why her students were talking about the new curriculum every time, Susan said she felt that she needed to emphasize the new reform in her teaching to make her students familiar with the new strategies of teaching, which they were already experiencing.

I had an informal interview with one of Susan' students on how he was enjoying the course. He revealed that the way Susan was teaching differed greatly from other lecturers' teaching, and "I enjoy it. I enjoy the debates, I enjoy giving help to others and getting help from my classmates. I just enjoy the rich opportunity of learning that our lecturer is giving us." He said that as a teacher educator, Susan "always wants us to debate issues":

She is so different from other lecturers in her teaching. She has changed my views on how to teach geography. She gives us time to debate the issues. She challenges our thinking, and also wants us to always relate what we are doing with the changes in education. For example, with the project method, the last presenter showed how the project method fitted well with the new ways of teaching.

The way Susan was changing her teaching helped her prospective teachers realized that she had different goals and those goals were reflected in the tasks she set, the opportunities she created for them to discuss and made connections to the changes in education, and the questions she asked. Susan made evident that "I want my students to be involved in something that will make them think." Because she was energized by the new approaches of teaching geography at Knox University, Susan was able to embrace the reform and the experience seemed energizing to her and her students as well.

Her  
classes. The  
earlier, seen  
others who  
was clear:

I do  
stud  
time

**Course I**

I  
beliefs a  
consiste  
interview  
student  
on indi  
facilita

solving  
Britis  
game  
to he  
prosp

Her colleague testified to the fact that Susan worked very hard to prepare for her classes. The way Susan taught was time consuming. Her colleague, whom I quoted earlier, seemed to be advising her about the opposition she might come across from others who were not teaching like her. But Susan's conviction about this way of teaching was clear:

I do not lecture. I prefer to teach. I look at a particular topic together with students, discuss it with them taking lead in the discussion. I give them enough time to express themselves. I prefer to do quality work and not quantity.

### **Course Readings and Its Relationship to the New Reform**

I looked at the readings Susan gave to prospective teachers to see how well her beliefs about the new ways of teaching were shown. The picture that emerged was consistent with what I observed in class, as told by her colleague and the student I interviewed, and what she told me about her teaching. Her selected readings for the students depicted how she believed teaching should be done. Most of her readings were on individualized learning in an open geography classroom, where a teacher worked as a facilitator of learning which was an alternative to a teacher centered classroom.

In some of her readings, Susan wanted students to play games and puzzles while solving a geographical problem. For example, she her students to play a puzzle/game on British weather, and farming. She asked them to work in groups to solve the puzzle or game. Thinking and making learning more real to students was of paramount importance to her. Two categories of learning were aimed at through her preparation: to increase prospective teachers' analytic or conceptual understanding of what occurred in

classrooms a

made it evic

Lo

Te

cu

cu

Not only

universi

should

should

empow

wante

differ

at the

recei

and

goin

muc

it w

Sus

the

ma

classrooms and to give prospective teachers concrete skills to use in classrooms. She made it evident that she was influenced by the new curriculum in her teaching by

Looking at the changes and focusing my teaching on that particular issue. Teaching at a university is very interesting because you make your own curriculum. You must also think that whatever you are putting there in the curriculum is not irrelevant...it should be relevant to the present needs.

Not only was Susan excited about being able to change her own curriculum at the university, but she was also taking into consideration the relevance of what students should acquire. The new curriculum, according to the Director -General of Education, should be based on critical thinking, co-operation, and social responsibility, and “should empower individuals to participate in all aspects of society”(White Paper, 1995. p. 1)

Susan’s change of practice did not come without problems. Although she so much wanted to change, there were problems of her being the only teacher educator using different teaching strategies in her teaching. When she tried the new visions of teaching at the two colleges of education before she went to Waterfall University, it was not received well, and that almost discouraged her. First, her students resented the strategies and said that they were being delayed by the methods, which they knew they were not going to use when they started teaching. Her students also complained of having too much homework when their colleagues did not have much work to do. Students thought it was a lot of work to read and apply what they read to real life situations. Second, Susan’s colleagues challenged her teaching, which they said was not in accordance with the teaching in schools. Third, she lacked teaching materials. The lack of teaching materials made her teaching more challenging.



All the  
with teaching  
visions of te  
the tradition  
overcame th  
brought fro  
was so exp  
colleagues  
were learn

### Critical F

W

continuo  
new kind  
business  
and had  
of it un  
instruct

### Confer

learn  
quic

All these problems presented to Susan an inner dilemma as to whether to continue with teaching students differently than her colleagues. She slowed down in using the new visions of teaching, but continued to phase in the new strategies and phase out most of the traditional approaches of teaching. As for the problems of teaching materials, she overcame this problem by using a lot of articles from books and her own materials she brought from Knox University. When she accepted a position at Waterfall University, she was so experienced with teaching in the new vision that she was able to handle her colleagues' criticisms. Most of her students liked her new vision of teaching because they were learning how to use the strategies that were asked about in job interviews.

### **Critical Features in Support of Susan's Practice**

What helped Susan to change her curriculum? Changing practice meant continuous learning. The previous anecdote of her changing even after she had started her new kind of teaching illustrates this. Fullan (1993) held that teachers are no longer in the business of conservation, they are in the change business. Susan was in a change business and had to learn autonomously and collegially since so much was happening, and much of it unpredictable. In this section, I discuss how Susan supported herself in this new instructional practice.

### **Conferences and Changing Practices**

Attending conferences was very crucial to Susan, who saw the opportunities for learning. When she talked about attending conferences, there were three themes that quickly came up: sharing ideas, networking, and support. Emphasis on sharing ideas was

key to cha

the chan

Little

toget

colle

inst

edu

fel

tha

c

key to changing practice for Susan. She believed that by going to conferences "you get the chance to share ideas with colleagues who cared about what you are doing":

You learn a lot from conferences, and if you are reform minded, you can come back and change your teaching style. You also want to be with other academics and share ideas and then develop again. Attending conferences does influence your teaching. At least it does with mine. I meet with colleagues who are serious in changing their practice.

Little (1987) agreed with Susan in this direction. She asserted that when colleagues work together, they teach one another about new ideas and new classroom practices. When colleagues work "closely in their area of specialty on matters of curriculum and instruction, they find themselves better equipped for work in class" (p. 505). As a teacher educator who liked "challenges," and "always appreciate new ideas in my area," Susan felt it was important to make contacts with colleagues from other universities although there were times when there was scarcity of conference funds from her university:

You grow professionally. There might be academics out there that are doing what you are doing or even more. That is why I try to get outside funding when I'm told that there is no money to go to conferences.

The main source of information to Susan appeared to be discussions with colleagues, reading current journals, articles and research done on changing practice, both from the Ministry of Education and independent organizations on information for education. "I just read. There is no one here to show us how to develop a curriculum. What we get are pamphlets. Nobody has come to show us how to implement. That is why conferences are very important." Susan was motivated to change her curriculum even if

no one was s

with colleag

Col

teaching di

exchangin

I

c

c

For he

confer

the su

unco

class

ther

reco

Col

wh

we

en

ex

th

no one was showing her how to do it. She had bought into the reform and from working with colleagues at conferences, she was better equipped for work in class.

Colleagues in Susan's area of interest provided the support she needed in her teaching differently by listening to what she had to say about what she was doing and exchanging information about the changes that could be brought in teaching geography:

I depend upon colleagues in my area from other universities in changing my curriculum. They give the support you need and you feel you are not alone in doing what you are doing in class. You feel you can still do more than what you have already been doing after listening to what others are doing.

For her own professional growth, conferences were important. She felt supported during conferences, something that she lacked in her department or school of education. It was the support from others that kept Susan going with her practice. What was being uncovered here was that Susan, who was committed to change in practice in her classroom, needed the support of others that shared her vision. Susan illustrated to us that there was a ceiling effect to how much one could learn if one kept to oneself. Susan recognized the inherent value of teacher educators working and learning together. Colleagues who listened and gave suggestions made Susan feel she could do more than what she was doing. Susan needed recognition that her efforts toward curriculum change were valued. Susan's experiences suggested that it was essential to think about how to encourage creative thought and action.

Not only would the exposure to current research, professional conferences and expanded opportunities for educators to learn about new practices both within and outside the university strengthen teacher educators' resolve to change curriculum, but it would

also help the

when there

doing what

Co

me

say

W

teaching:

discourse

addressi

colleagi

collegia

reward

variety

unive

Netw

Mate

for a

She

she

Ge

also help them to network. Susan believed that networking was important because even when there were no conferences, one could get together with those people who were doing what one was doing:

Conferences give me the opportunity to network. Networking engages its members in different activities such as curriculum workshops, conferences. I can say that networks are really committed to addressing problems to teaching.

When Susan talked about conferences, she thought about getting new ideas about teaching; she thought about networking that was going to help her stay in touch with a discourse community that encouraged its members to exchange ideas and assist in addressing problems in teaching; she thought of support that was readily available from colleagues from other universities. Lieberman and McLaughlin (1992) believed that collegial networks “afford occasion for professional development and collegueship and reward participants with renewed sense of purpose and efficacy” (p. 674). Susan needed a variety of opportunities to learn and to connect with teacher educators in other universities--to talk with them about her work, to share ideas, questions and frustrations. Networks made ongoing professional exchanges feasible.

### Material Resources

Obtaining materials that encouraged students to think independently and to look for additional information was the task that confronted Susan as she changed her practice. She looked for those materials that were relevant to what she taught and at the same time she improved where there were no teaching materials. "I use material from other books, Geography journals, and thesis. With books, I choose what is relevant to the themes."



Susan "improv

well. She pref

improvisation

materials were

Impro

resourcefulne

the compose

was freedom

composition

environme

resourcefu

relevant to

musician

learning r

environm

make vic

what she

watch

deeper

Susan “improvises” most of her materials to enable her to teach what she wanted to teach well. She preferred to “use resource materials such as videos, and films.” Her pursuit of improvisation arose in response to two challenges: working in places where resource materials were scarce, and her changing way of teaching that needed creative materials.

Improvisation was used mostly in music and theater, and it required resourcefulness. Such a process required a more profound creative collaboration between the composer and the performer than did the interpretation of fully noted work. There was freedom accorded performers who improvised at crucial moments in certain fixed compositions. Improvisation required individuals in music to explore and work with the environment rather than try to control or manage it. Improvisation to Susan meant resourcefulness since she used materials from other books, journals and anything that was relevant to what she was teaching. She developed her own videos to fit her topics. Like a musician or actor who improvises, Susan was creative, for she came up with her own learning materials. She was not limited or fixed to a script, but she worked with the environment to create her own teaching materials. She also used the local surroundings to make videos that she in turn used in class to teach certain concepts or aspects. This was what she called “improvising the materials.”

I always ask the media man to follow me when I undertake a field excursion to record what we learn and then use it in class. Once I make a video, it is there for use in the next few years. I have always made my own resources.

According to Susan, students could check out these videos from the library and watch on their own if they did not understand what was taught or if they wanted to deepen their understanding about an issue. She used films and videos because they

allowed st

students c

again. At t

with my o

have found

normally v

improvise

W

us

ha

She saw

ability to

Personn

of educ

comme

dean "C

Susan

the nev

She w

allowed students to reflect on and discuss in their groups what Susan was teaching. When students came together, they looked at their responses while they watched the video again. At times, Susan said she viewed a video or a film in advance and then "come up with my own worksheets for students. Of course it takes time to arrange all these, but I have found this very helpful in teaching my students to understand what would be normally very abstract." When I asked Susan why it was so important for her to improvise materials for teaching, her response was:

Working in a place where resources are scarce teaches you to improvise. I make use of the local surroundings by making my own videotapes. Again I'm trying to have something to engage my students with.

She saw improvisation as a potential link between the need to plan for predictable and the ability to respond simultaneously to the unpredictable.

### Personnel Resources

Susan thought that there was support for changing the curriculum from the college of education "because of the new dean who is committed to changes in practice." She commended him for being "accessible and knowledgeable" in the area of curriculum. The dean "drafted a course outline to show those who could not do it." He encouraged, said Susan each member of the faculty to rewrite his or her curriculum so that it could fit with the new approaches.

The dean, according to Susan, also gave her support when it came to field trips. She went on to say that the dean also cared about his staff members and wanted them to

be able to w

proposals a

feedback. H

depicted as

also to read

curriculum

professiona

### Constrain

Al

recognize

wanted to

Lack of I

W

curriculu

V

H

t

c

The stat

lecturer

was Su

be able to write papers. “The dean had taken it upon himself to encourage us to write proposals and then he would sit down with each one of us and go through them giving us feedback. He is even co-authoring papers with junior members of staff.” The dean was depicted as someone who encouraged his faculty to go and present in conferences, and also to read and publish papers. While the dean wanted the faculty to change their curriculum, he encouraged them to write papers for conferences for their own professional development, which was the essence of teaching and learning better.

### **Constraints in Changing Practice**

Although there was evidence that Susan was changing her practice, she recognized that there were constraints in changing the curriculum. Even Susan, who wanted to keep up with the change, found the constraints to be a challenge.

#### **Lack of Departmental Support**

When Susan was asked about working with colleagues in order to develop the curriculum, she indicated that

We do not have such things as working together to develop the curriculum. We have departmental meetings but you will find you are just submitting things. We talk about examinations, problematic things in the department and how to get rid of them.

The statement above suggested that Susan needed an opportunity to talk with other lecturers and professors about teaching, something that was lacking in her department. It was Susan's concern that in departmental meetings there should be time for faculty to

develop the

to familiar

of change

department

W

ha

te

or

I s

te

Susan fel

creating

educator

substant

would li

wanted t

the impo

improve

among

climate

crucial

strategi

Institut

develop themselves through teaching one another. She stressed that there should be time to familiarize themselves with new methods, materials and reflect and work on problems of change collectively. One theme that ran through my interviews with Susan on departmental support to changes in practice was discussing the real problems of teaching:

We do not talk about how to teach, what type of a curriculum we would like to have. In our meetings we must always address the questions, what are we teaching? What are the problems of teaching this way? Our discussions are geared on solving management problems. We are more on management than on teaching. I should think we should be organized on teaching styles and how to improve teaching.

Susan felt strongly that the curriculum changes should be group activities, thereby creating a climate for change in the whole department. She also felt strongly that teacher educators should go beyond management and task-engagement decisions and make substantive curricular and instruction decisions. In the departmental meetings, Susan would like to see faculty reporting on issues of teaching method. In other words, Susan wanted to see extensive ongoing learning even at her own department. This underscored the importance of affording teacher educators the opportunity to engage in self-improvement activities. Susan was encouraging the infusion of new ideas of teaching among faculty through “in-service” program within her department. Establishing a climate where academics felt free, encouraged and supported to teach differently was crucial to Susan. She decried the department’s lack of influence and leadership on new strategies of teaching.

### Institutional Support



As

experience

changing

the univer

available

us except

what wa

resource

She ma

asserte

issue a

well q

Scho

work

prof

wor

coll

As far as the institution was concerned, Susan asserted that she had not experienced any help or encouragement by way of resources from the university for changing practice. "I have never seen such a thing as institutional support." She felt that the university was "taking it for granted that when they are making few resources available in the library, they are supporting us. I do not think the institution is supporting us except once where it organized someone to come and address us." But Susan said that what was seriously lacking was "recent books and journals on Geography, audiovisual resources, new textbooks or teaching materials written according to the new curriculum." She maintained that the few books that were in the library were outdated. Miles (1990) asserted that "change is notoriously resource hungry" and he agreed with Susan on this issue and further argued that adequate resources for effective teaching and learning, and well quipped libraries would show institutional commitment to the priorities of teaching.

#### School of Education Support

On the School of Education side, Susan indicated that because there was no working together; junior members of staff were forced to take initiative and consult professors who they thought had knowledge on issues they were working on. Susan was worried about the lack of leadership in matters pertaining to curriculum. She and her colleagues took the initiative to go to professors and find out what they were doing:

There is no support in developing curriculum here. Sometimes we just go to professors and see what they have done and also ask them if they have developed that kind of curriculum. We ask professors 'Tuwani' and 'Mulanga, those we consider knowledgeable, for their curriculum so that as we develop our own, we use their curriculum as a model..

She com

educatio

artifact

well w

way ar

things

Time

comp

muc

suff

sinc

prep

In t

reac

hav

han

She complained about the layout of the classroom. She maintained that the school of education should have a Geography classroom where students could display their artifacts. Susan preferred sitting in a circle so that she could be able “to communicate” well with her students. But because “this is not a Geography class, chairs are facing one way and one cannot even have displays of geographical artifacts. We cannot display things that students collect in their teaching practice and field trips.”

### Time and Changing the Curriculum

Time constraint most of what Susan planned to do with the students. One of her complaint of loss of teaching time was related to the students class boycotts. She held that much time was taken by students’ extended boycotts of classes, and her teaching suffered. She worried that not enough time was given for discussion during those times since she had to teach her students important things before they completed their teacher preparation program.

Students contribute to shortening of time for teaching. I thought I would be halfway through these projects right now but they are on class boycott. You end up not giving students enough time to discuss in class because there are things that you want them to learn before they can start teaching full time.

In times of boycotts, she gave her students “photocopied notes so that they can go and read on their own.” When students were piled with work, “not only from my course, they have a tendency of memorizing because they fear that most of what is written in those handout might come in the examination.” Susan made it clear that she felt she was

obliged to

question

T

their fin

V

H

When I

month b

influenc

said tha

observ

here. Sh

atmosph

that wa

prospec

shorter

half m

Rewa

the un

obliged to give her students notes to study and learn on their own and “so that if a question comes in the examination, they can stand a better chance of doing well.”

There was also time constraint on how long prospective students were taught in their final year:

We have only one year of teaching them. It is very short. One has to make sure that one covers everything important to cover in this one year which is punctuated by practice teaching and students boycotts.

When I arrived I arrived at Waterfall University, I was told that students had spent a month boycotting classes, and Susan indicated that time was “exercising a strong influence over my work” such that it was constraining her ability to teach differently. She said that she moved “a little bit faster” to finish what she had prepared for them. When I observed her, I did not feel like time was a constraint in the sense that Susan mentioned here. She took her time with the students to learn in a very relaxed and challenging atmosphere, at times charged with emotions. Susan was not happy about the limited time that was given to the preparation of teachers. Susan held the view that when teaching prospective teachers was coupled with teaching practice within a year, teaching time was shortened. In one year of preparation to teach, students were expected to have two and a half months of practice teaching.

#### Rewards structure and its influence on changing the curriculum

The weight of the pressure to publish and carry out the kind of work rewarded by the university had an effect on how Susan would have liked to teach at times. Susan

revealed

submit

1

h

P

a

n

c

At time

confere

publisl

merit i

she w

other

that t

chan

unpu

revealed that she at times resorted to lecturing because of deadlines for abstract submissions, and when she was writing papers:

If you are preparing for a conference, or writing a paper you find that you do not have enough time to prepare for lessons because of all that is involved in preparing and writing papers. That is, you want to meet the deadlines for the abstract submission, and you also want to get the funding for the conference. As a result, I resort to lecturing. Sometimes you go to class and only spend one hour or call the class off.

At times Susan did not have enough time to prepare for teaching because she had conference papers to prepare and meet deadlines for submitting abstracts. Reading and publishing papers were not taken lightly when the university considered promotion or merit increases. This was evident in Susan's statement:

You cannot be promoted by teaching only. They do not consider how you have been changing your curriculum when promoting you, but they look at your publication. You do not get promoted without publishing and reading scholarly papers.

Susan had learned that being good at teaching was not sufficient, consequently, she was not spending as much time as she would have liked working on lesson plans and other teaching techniques when it was time to prepare for conferences. She maintained that the reward structure of the university did not value efforts such as time spent in changing practice.

Promotion of academics at Waterfall University required relevant qualifications, unpublished and creative work in addition to published materials (Policy on



Promoti

different

lecturer.

supervis

promoti

degree w

addition

From le

scholars

to do co

professo

outstand

outstand

Lastly,

with dis

communi

experien

papers a

change

The wa

teachin

because

Promotion/Merits Increases, p. 15). Teaching was considered as an experience in different levels. For example, for those applying for consideration from junior lecturer to lecturer, teaching experience at a tertiary institution was required. Council had approved supervision of postgraduate programs to be taken into consideration when considering the promotions of academics. From Junior lectureship to Senior lectureship, a master's degree was required and publications were strongly recommended for promotions, in addition to unpublished work, creative work and potential to do community service work. From lecturer to senior lecturer, a doctoral degree or equivalent was required and quality scholarship was strongly recommended. Creative work, unpublished work and potential to do community work were also required. Promotion from senior lecturer to associate professor required a doctoral degree and outstanding scholarship in addition to the outstanding unpublished work, outstanding community work and creative work of outstanding quality. Quality teaching experience at a tertiary institution was required. Lastly, from associate professor to professor, one needed a doctoral degree or equivalent, with distinguished scholarship, distinguished unpublished work, distinguished community service work, distinguished creative work and distinguished teaching experience at tertiary institution.

Susan had a master's degree, and she had started publishing already and reading papers at conferences. But she was concerned that the time she spent on curriculum change would not be considered in promotions "because to evaluate teaching is difficult. The way I teach is even more confusing to a person who is used to the old approach of teaching." The reward structure at the university should be taken into consideration, because, according to Susan, it related to whether or not faculty used their time in

curriculum

should a

people u

involved

trying to

something

prerequisite

conference

Susan

independent

educational

and

teaching

curriculum change. Burch (1989) noted this idea and went on to say that universities should address issues of rewards and resources which were integrally related to how people use their time..." (p.277). Susan strongly felt that a lecturer who was "very involved in curriculum change in her class should be rewarded as such" because she was trying to do something different and creative. Instead, the university wanted to see something creative in the form of a paper well thought of.

While the university made publications and presenting papers in conferences a prerequisite for promotion, according to Susan, it discouraged you from going to conferences by giving you small funding for the whole year:

Financial resources are low. You have only R3 000 to go to conferences the whole year. Every lecturer must attend only one conference with funding from the university. You can only attend more conferences if you apply for funding from outside bodies such as the Human Science Research Council (HSRC). There should be money available for academic staff members, but the dean of research has cut the number of conferences one can attend. Every lecturer attends only one conference.

Susan made it clear that promoting reflection, critical thinking, creativity, and independence would require significant changes from current practice and a teacher educator. If lecturers would need to engage in extensive discussions with others inside and outside the university, more money, more than what was presently allocated to each teacher educator would be needed:

The administrators at the university are putting their foot down on junior lecturers and lecturers to upgrade themselves, but as they encourage that, they do not provide funding or adequate funding for conference.

Fullan

to learn

risks.

under

environ

some

contrib

change

learn;

lessor

4) Sh

to be

good

the c

enthr

philc

chan

chan

Fullan (1995) believed that it was necessary for educators to have a personal commitment to learn individually and together, to have a questioning attitude and to be willing to take risks.

In conclusion, Susan was a teacher educator who was changing her teaching under difficult conditions such as lack of resources, big classes and unsupportive environment, but she was teaching differently because of her determination to do something different from what she learned before going to graduate school. Some factors contributed to these changes: 1) Susan's beliefs about teaching and learning were changed when something interesting was introduced to teaching and she was ready to learn; 2) she had a belief that using students experiences helped them understand the lesson better; 3) they (students) learned productively and as a result, they did not forget; 4) She had a conviction that she could try the new methods anywhere. What Susan came to believe in at Knox University was that the way she was taught, which she felt was good, could be done anywhere. Susan would need to find a way of trying to minimize all the constraints to her teaching.

Susan was able to adopt the new ways of teaching and she did that enthusiastically. There may be additional features of Susan's personal history or philosophy, of which I did not fully pursue, that may provide how she was able to change. Therefore, I am limited in my knowledge of knowing why she was able to change so dramatically.

INTRO

S

teaching

Curricu

curricul

conduc

taught

Univer

prospe

eight y

Knox

prosp

under

and b

teach

belie

"prep

with

expl

## **Chapter 5**

### **SIMON: A COMPLEX APPROACH TO REFORMING TEACHING**

#### **INTRODUCTION**

Simon has been teaching for twenty-four years, eight of which were spent in teaching science in his home country, Kensington. He worked for four years at the Curriculum Development Center where he was involved in implementing a new curriculum reform. For six years, he worked in the department of Examinations, conducting both local and foreign examinations. When he came to South Africa, he taught science for eight years at a college of education before joining the Waterfall University. Simon has since been teaching the physical science methods course to prospective teachers and philosophy of Education to undergraduates at the university for eight years. He did his two senior degrees in South Africa, one of which was done at Knox University, where Susan did her masters.

In interviews, Simon portrayed himself as enthusiastic and committed to teaching prospective teachers. Simon had made it his priority to help his students gain an understanding of scientific concepts during their course of study through experimentation and by showing them how to develop scientific ideas. He believed that students, not teachers, should have the last word in teaching and learning situations. He further believed that his students could gain an understanding of concepts if there was “preparedness” of both the teacher educator and students. The “preparedness” started with the teacher setting a stage for students to learn in a manner that encourages exploration of information.



of his pr

knowled

understa

experim

indicate

observa

clarifyi

new in

Africa

docum

"a va

the fi

refor

able,

infor

teach

simp

this v

me.

his r

Yet Simon's interview responses were fraught with contradictions. He described of his practice in two ways: to give knowledge and to bring about transformation of knowledge. While he sought to transform science knowledge by "teaching for understanding," he also wanted to give knowledge by showing students how to "develop experiments and projects that they can do in their schools." In most of his responses, he indicated that experiments and projects were repeated several times. Yet during my observation of Simon's class, most of what occurred was his imparting knowledge and clarifying content to students rather than Simon and his students, together, uncovering new insights in the content.

Interestingly, his teaching was based on responding to the problems that the African National Congress (ANC- the ruling party) had referred to in its discussion document. The ANC released a discussion document stipulating, among other things, that "a vast proportion of students leaving the school system, either before or after completing the final year, do so largely unprepared for the rest of their lives." The new education reform in South Africa expected that every student leaving the school system should be able, among other things, to solve problems, make decisions, plan, organize, collect information and have good personal skills. To address this problem, Simon intensified his teaching of prospective teachers the strategies that he had already started using: doing simple projects, and showing or demonstrating how to do experiments. His rationale for this was that "teachers are change agents in schools."

Simon's pre-South African experiences in teaching were not fully discussed with me. No matter how I tried to ask questions about these experiences, Simon would switch his response to describe his experiences in South Africa. As a result, we do not know in

full Sim

has chan

his work

First, I lo

hope of

his own

describi

in practi

**Simon**

primary

memor

and me

had to

chemis

did the

say:

full Simon's earlier beliefs and experiences, their influences on his teaching, nor how he has changed or not changed because of some interactions with his students, colleagues at his workplace and those he met in conferences.

In this case, I examine Simon's approaches to teaching in the face of the reform. First, I look at his experiences and beliefs that have influenced his teaching, with the hope of understanding how he reacts to the new reform. Later, I look at how he describes his own teaching, followed by describing what took place in Simon's class. I conclude by describing the critical features that, according to Simon, influenced or limited his change in practice.

### **Simon's Experiences as a Student**

Simon went to school outside South Africa, and while he had a "hazy view" of his primary school education, he remembered his high school days well. What came first to memory when Simon was asked about his experiences at high school was punishment and memorization. "Teachers used to punish us heavily for failing a test or a quiz. You had to memorize in order to pass those tests and not get punished." He remembered his chemistry teacher presenting his lessons with "practical demonstrations, showing that he did thorough preparations."

Speaking proudly about his teacher who motivated him to learn, Simon had this to say:

There was one teacher who had just finished his degree and although he was still very raw (fresh) from the university, he was a very good teacher. I did not pass chemistry in O-level, but I did in A-level because of this teacher who was fresh from the university. What made him different from others was that he could bring

had  
all

Simon said

chemistry

example

or demonstration

taught them

teaching

improvement

Showing

He admitted

that was

started

demonstration

lack of

abstract

before

his teaching with practical demonstrations. The rest of the teachers were too abstract in their teaching. They did not demonstrate anything.

Simon saw demonstrations by his teacher as good teaching. What distinguished the new chemistry teacher from the rest of his teachers was that he could teach with practical examples. He created the opportunity for Simon and his classmates to learn by showing or demonstration, something very different from other methods used by teachers who taught theoretically. The new high school teacher had a great impact on Simon later in his teaching. What made an indelible mark on Simon was the new teacher's determination to improve the teaching of science:

He came to class every day thoroughly prepared with different experiments for us to do or for him to demonstrate. This young teacher was prepared to bring improvements to teaching. He had a great impact on my teaching thereafter. When I started teaching, I wanted to be different. I wanted to be like this teacher. I would set my own experiments because I wanted to get experience quickly.

Showing and demonstrations became the methods of his teaching high school chemistry. He admired his chemistry teacher for being prepared to bring improvements in a subject that was otherwise taught abstractly. As a result, Simon set out to emulate him when he started teaching, for he did not want to be merely theoretical by teaching without demonstrations. Simon used both the terms "abstractly" and "theoretically", to emphasize lack of concreteness or practicality in how his teachers taught. For example, one could be abstract and theoretical by not giving examples when one teaches. The teachers he had before the chemistry teacher came taught in most cases without giving examples.

their t

what v

"keep

He st

signi

creat

life e

wha

lesse

ther

taug

rem

pra

situ

By contrast, according to Simon, his old teachers “were bad.” He asserted that their teaching was boring because “there was no variety in their way of teaching,” nor did what was taught have any bearing on his life. He went on to say that old teachers did not “keep track with what is happening.”

They offered their lessons the same way every day. It was rote teaching, and mostly things in the book. There was nothing in what they did in class to stimulate creativity, and nothing was related to my own life. There was nothing new to expect in their way of offering lessons.

He strongly believed that bringing teaching closer to the students’ experiences was significant to their understanding what it was they were learning. Simon thought of creativity as being related to, and stimulated by, relating what one learns to one’s own life experiences. He was not given the chance to use his own experiences to understand what he was learning. There was no cause for excitement because the style of offering lessons was the same each day such that “their lessons were boring.” Teaching was therefore characterized by lack of variety. Because of how most of Simon’s teachers taught, Simon was left to memorize information in the book.

As a student in teacher education, Simon took two methods classes. He remembered professors who would teach him theories of learning, “yet they were not practicing them.” His professors expected him and his classmates to apply theories in real situations without being given examples on how to use them.

I remember theories of teaching. They were not helpful concerning practical application. They were good in getting factual information. My professors lectured to us and talked about theories, which they were not practicing. They were very methodical in doing their things.



University

were tea

without a

**Experi**

teacher

teaching

dominat

times."

Simon o

using de

about m

informa

emulati

science

respon

wanted

examin

educati

critical

colleg

University professors, according to Simon, did not put into practice the theories that they were teaching. Step by step Simon's professors lectured to him and his classmates facts without application, hence he received most of these facts passively.

### **Experiences as a Teacher**

Although he had indicated that there was a teacher who stood out as a good teacher when he was at high school, Simon said that he used the traditional methods of teaching when he started teaching. Teacher talk, and direct and whole group instruction dominated his lessons. He believed that "teachers teach the way they were taught at times," but when his students did not get "active and involved" in their own learning, Simon decided to experiment with the way his chemistry teacher taught him, that is, using demonstrations. Simon reported that students began to be "interested and excited about my lessons." Simon did not tell of his pre-South African experiences beyond the information stated above.

When he came to South Africa, Simon asserted that he was committed to emulating his high school chemistry teacher whom he thought improved the teaching of science by showing and demonstration. However, Simon was shocked by how students responded to his teaching. They reacted to his teaching in a negative way since they wanted to be "taught facts." They did not want to be taught differently because "their examinations followed the book." He reasoned that his students were used to Bantu education—a form of education that promoted technical training at the expense of critical thinking and active participation of students in shaping their own lives. His college students felt Simon was "wasting their time for memorization by teaching them

de  
ex

In  
h  
to  
is  
a  
v  
n  
s  
c  
f  
i  
b

details, instead of giving them the scope for the test or examination.” Students were expected to learn chunks of material by rote and know it well for the examination or test.

When I taught them science, students did not respond to my questions. I did experiments and at the end of the year I got no good results. I looked at other teachers, how they were teaching and how their students were performing. Teachers established their authority by punishing students. They did not teach but gave students a chapter to study. But their students got to do well. Punishment became the motivator for the students to learn.

In other words, transmission teaching predominated and teachers and students relied heavily on prescribed textbooks. Teachers, said Simon, were unable to use innovative teaching methods due to their own educational experiences in colleges of education (that is, training colleges) which taught only traditional methods. The pressure of conformity and producing good results influenced Simon to begin to teach the way other teachers were teaching. As a result, Simon took on the teaching that he believed would have good results at the end of the year. More importantly, he used punishment to force students to study and as a motivator to learn. He was persuaded to do so because it was “pointless to continue doing the experiments when the examination was tailored around knowing facts” and not how he was teaching. Therefore, telling and showing students what to do instead of creative activities that helped students to construct understanding of the content became the trade of his practice:

I joined in doing what other teachers were doing even when I knew that students did not understand anything. The language the students understood was the rod and I started using it. At the end of the year, the results in physical science had the second highest score in the whole school. I used the cane for two years and the results were good.

authorit

the cand

when he

said Sim

examined

to Simo

teacher

He o

beca

outo

"pe

ad

ye

u

E

Simon became an “effective teacher” through using a cane. He established his authority by using what students feared most: punishment. He saw the benefits of using the cane as opposed to teaching for understanding, for his students began to test well even when he knew they did not comprehend “most of what I was teaching.” The community, said Simon, viewed teachers as experts. Teachers whose subjects were failed in the examinations made “the community lose respect for them.” High failure rate, according to Simon, was a sign to parents, colleagues, and students that an educator was not a good teacher:

I soon discovered that if I continued to teach in ways that involved students a lot, I would run into problems with both parents and students. Parents lose respect for a teacher whose subject is failed the most. To show that students did not care about my subject, they would come and prepare for another teacher’s test in my class.

He opted not to waste his time and energy by teaching differently than other teachers because the benefits of his unconventional approach were not bringing out the desired outcomes: a high pass rate. To borrow Fullan’s (1991) words, Simon realized that the “personal costs,” such as investments in time and energy and the threat to one’s sense of adequacy (p.129) by teaching in ways that would not bring good results at the end of the year, those costs would be high and the “benefits unpredictable” had he continued to use untraditional methods of teaching. The examinations, according to Simon, only tested the prescribed syllabus and “determined the direction of teaching.” Because of the emphasis on examinations, Simon got into the habit of preparing students for certification and not developing their ability for independent thinking. After using the cane for two years at college, Simon did return to doing experiments but only occasionally. It was important to

have the

of exper

school c

Waterfa

studies.

there w

class." I

of what

Univers

projects

his exp

experie

he was

He also

taught"

been d

said th

time at

reduced

activiti

unders

have the “trust of the parents and students by keeping a high pass rate and not doing lots of experiments.”

After eight years of teaching at a teachers’ college of education, Simon joined the school of education at Waterfall University as a lecturer. It was when he was working at Waterfall University as a lecturer that he went to Knox University for one of his graduate studies. Of the learning experiences at Knox, Simon said, “it was good” in the sense that there were “projects to do, and you were to use your experiences when discussing in class.” He asserted that “through my exposure” in conferences and seminars, he got ideas of what teaching and learning should be. Therefore, part of his experience at Knox University was to reinforce what he had given up on: teaching for understanding using projects and experiments.

He indicated that after his senior degree at Knox University, he put into practice his experiences in teaching, that is, using projects, experiments and one’s own experiences in learning. He explained that he was doing “a lot of experiments now” for he was convinced that by showing or demonstration students learned with understanding. He also mentioned that he was breaking the belief that “teachers teach the way they are taught” with his students. He later explained that he “dropped a lot of things which I had been doing in my course and had realized that they were not benefiting my students.” He said that that he had an unrealistic syllabus with many things to cover without enough time at his disposal and consequently, he used a lot of telling in his teaching. As Simon reduced the syllabus to a more manageable size, he said he also turned to using creative activities in teaching such as giving them projects to do and experiments to help them understand the content. Simon’s view is echoed by Weiss and Cohen in Ball (1992) who



say, "ol

experie

things i

critical

"showi

the con

importa

student

differe

becaus

teachin

but the

still ch

**His B**

pedag

conce

say, “old knowledge, by virtue of its extensive accumulation and confirmation by experience... necessarily dominates... But people do learn, change their minds, see things in new ways” (p.3). Simon strongly believed that students would not develop a critical view of learning if they were not engaged in a lesson.

Simon believed that by using creative activities such as demonstrations and “showing,” students would be involved in their own learning and they would understand the content they were supposed to learn. Showing and demonstrations were the most important methods of his teaching, and these were learned from the time he was a student.

But when one looks closer into Simon’s new practices in teaching one gets a different picture of change. His fundamental beliefs of teaching have not changed because he is still telling the students what to do, that is, showing. He has altered his teaching behavior, that is, he has done away with teaching “theoretically,” as he called it, but the creative activities he offers students to construct understanding of the content are still characterized by showing.

### **His Beliefs about Teaching and Learning**

Doing experiments and giving students projects to do formed the base of Simon’s pedagogy. If he did not do experiments, so said Simon, his students would memorize concepts without understanding:

My teaching is now concentrating more on doing experiments, showing students the processes involved in developing scientific ideas either by demonstration or by students’ activity projects. If I do not do this, students will not understand

concepts, they will start to memorize them. I want this clarification to take place during the course of their study. I do not believe in telling them what to do.

It is Simon's belief that students should be given the opportunity to seek their own understanding through what they are taught; that is, students should have their own viewpoint. His aim was to engage students in pursuing deeper understanding of their world; in the problems of the subject matter, and in the processes of asking questions and seeking answers. Simon seemed to follow in the footsteps of his high school teacher who impressed him by allowing students do the experiments, using different experiments every day.

When asked about his ideas about being a facilitator, Simon was quick to say that he did not believe in imposing what was to be learned. Instead, he believed that students should be involved in their own learning by coming up with their own conclusion.

Making them feel like scientists was significant for Simon:

I believe in being a facilitator. Your teaching should not be one way. I go with that. Your teaching is not imposing facts, let them (students) come to a conclusion on their own. They get the feel of being scientists.

Simon was confident that his students could gain an understanding of concepts if there was "preparedness and a good classroom." Teachers were, according to Simon, responsible for setting the stage for learning by preparing their lessons well and using different teaching strategies. For students to be prepared to learn at all levels of learning,

There must be motivation. Students can only learn when they see the preparedness of the teacher to allow them to discover knowledge. In other words, students learn well when the teacher has set a stage for them to learn in a manner that encourages exploration of information, lest they become bored.

He talked about learning as an issue of motivation. His theory was that for students to learn, they need to be interested in their learning. Defining students' learning as a motivational event leads Simon to believe that teaching strategies should be varied, but not necessarily because some strategies would be more effective than others, or because learning would take place, but rather because variations would prevent students from becoming bored (Holt-Reynolds, 1991).

When I observed Simon in a 2 hour class, he had divided the time for his class into two parts: the first one hour and twenty minutes was the lesson of the day on questioning in teaching, which turned out to have two sections. In the first section, Simon taught about the importance of questioning in teaching. The second section of this first part was about lesson plans. Then the last thirty minutes of the class were devoted to experimentation. The explanation he gave about this arrangement of teaching was that "the time is long and students might get bored if I teach for two hours." Simon seemed to be preoccupied with engaging students' attention to the end of the lesson more than in making prospective teachers see and understand how questioning, which was the focus of the day, should be done.

### **Simon's Description of his Practice**

This section is aimed at providing a picture of how Simon thinks and acts as a teacher educator, and to aid us in understanding what Simon is doing with his students in

class. Most of Simon's description of his practice was a repetition of what he told me earlier on. But this repetition seemed to be crucial - a way of stressing how important what he said was in his teaching.

His description of practice is divided into four parts: helping students to develop critical thinking, teaching for understanding through using experiments and demonstrations, imparting knowledge and clarifying content, and, teaching so as to transform science education.

#### Helping students to develop critical skills by using projects

Simon believed that he was helping and encouraging students to develop critical skills by giving each of them a project to work on and present in class. Class presentations of completed projects were done to "let students ask questions and help the whole class think critically about what was presented." Simon believed that students should "learn to accept constructive criticism" in order to learn to look at "your defects." Interestingly, this was not observed in Simon's class. Students had a project to turn in on that day, but the students asked no questions because Simon was teaching another lesson, and he only referred to the students' project in passing. He nevertheless held that "one learns better when looking at things critically."

When asked why he was using only projects in developing his students' critical thinking, Simon pointed out the problems that high school science teachers have and that his aim was to attend to those problems with his students before they began teaching:

The problem that teachers in schools have in science is that they teach science in a theoretical manner. It is textbook oriented. But I give my students simple projects, and not give them equipment. I tell them to go and find the materials. If they cannot find the materials here they will not be able to do it when they start teaching. If they can find the materials now, they can always think about simple materials when they are placed in schools without instruments.

In other words, Simon strongly felt that if prospective teachers could figure out the materials to use during their preparation, it could be easy for them to get the materials when they begin teaching mostly “in remote and disadvantaged areas” and that this would encourage what he saw as critical thinking in their teaching. Therefore, training students to get materials to do simple projects was a prerequisite for doing projects. One other understanding significant to Simon’s teaching was that he viewed the problem of the teaching of science in preservice teacher education through the lenses of problems that high school teachers were experiencing. He did not perceive the problems to originate in how prospective teachers were taught, nor in the challenges of the content and students’ efforts to engage it. Therefore, he helped prospective teachers to think critically about science problems that high school teachers experienced in order for them to learn how to look at ways of solving those problems when they start to teach.

#### Teaching for Understanding through using Experiments and Demonstration

Simon taught for understanding by demonstrating to students how to develop experiments. As indicated elsewhere in this chapter, Simon believed that doing more experiments and showing students processes that were involved in developing scientific ideas would make students understand concepts. “Unless teachers do experiments, and show them (students) the processes involved in developing scientific ideas either by

demonstrations or experiments, they are not going to understand. If students do not understand concepts, they will start to memorize.”

The goal of Simon’s course was to engage his students in doing experiments in science as opposed to being listeners to what the textbooks and teachers have to say. By doing experiments with his students, Simon wanted them to observe, analyze, interpret, and present their conclusions. Students were also expected to make connections between ideas, and by so doing he was, in his words, “supporting my students in making conceptual understanding in a larger context.” For example, in one handout, Simon had students answering questions on “every day science” around them from a newspaper clipping. In this activity, Simon wanted his students to demonstrate their understanding of the connections between scientific explanation and what they use every day. A good deal of analysis and interpretation of information was needed for this activity.

#### Imparting knowledge and clarifying content

One other important aspect of Simon’s classroom practice was to impart knowledge and clarify content that was not clear to students. The students’ basic science knowledge was a source of concern to Simon, for “there are gaps in students’ knowledge about science.” He asserted that the students had gone through the degree program, but “most of them have insufficient basic knowledge of science.” He was keen to have them learn the content that they missed in their science degree by including it, as he said, “in this method course because I want them to have clear concepts or else they will mess up later on in class.” Since some of his students did not have the necessary science content knowledge, Simon perceived himself as doing two things in this method class: teaching content and methods of teaching. Therefore what he did when he taught the missed

content was “to give or impart knowledge” and clarify content because, he explained, students have reached “third level in physical science but they seem to have a narrow scientific area, whereas they need to have a broad basic thing.”

But Simon’s description of his teaching as giving and clarifying knowledge seemed to carry the connotation that knowledge was given and not constructed by students together with their teacher educators. At the same time he believed that students should be allowed to discover and explore knowledge. There is some internal inconsistency in what Simon believes in. He believes in allowing the students to discover and explore knowledge on their own, while at the same time he believes that when he teaches he is imparting and clarifying knowledge. For Simon, imparting knowledge was characterized by telling and consequently, students would not have the chance to explore and discover knowledge themselves

#### Teaching for transforming science education

Simon explained the term transformation as bringing major changes to teaching. He believed his own teaching for transforming science education could be “brought about through teaching differently from what students were taught.” He wanted his students to make major changes from teaching in traditional ways to “teaching with understanding” through developing experiments and doing projects. To show the central role that experiments played in his teaching, during the lesson lasting 2 hours that I observed, Simon devoted the last 30 minutes to performing a prediction experiment. Simon did the experiment and then asked the students to tell him what was going to happen to the three candles of different sizes covered by a glass lid. Students only looked and did not do the experiment themselves. (The full version of this lesson will be discussed later on). This



way of teaching contradicted Simon's beliefs about the role of students during the lesson. There were also readings about "a good science teacher" which showed that Simon believed in transforming science education, as he put it. For example, the readings encouraged prospective teachers to use a "curriculum that encourages pupils to bring out their hidden potentials and talents, and should use their innate creative abilities." The lessons should be "student centered and allow students to think, communicate, work in groups and encourage innovative ideas and not restrict their activities and prevent them from becoming independent individuals." His readings indicated the type of change that reformers are looking for, but Simon's teaching ran counter to that type of change. From the lesson that I observed, it would seem as if Simon was instructing prospective teachers how to teach without necessarily modeling it in his own teaching because what was described in the readings was not observed.

The above explanation reminds us that the meanings of the terms transformation and teaching for understanding differ with different people. For instance, some researchers (Ball et al, 1990; Cohen et al, 1990) argue that teaching for understanding requires a series of transformation that affect both students and teachers. Students in particular needed to be actively involved in constructing, interpreting and making and exploring meaning. The change in teaching science that Simon was referring to depicted himself as someone whose teaching of science did not involve reproduction of knowledge but transformation of knowledge, which Reid (1991) said could only occur when the teacher and students uncover new insights in the content. However during my observation, Simon's teaching was largely lecturing, characterized by merely a transmission of information. He called on students to provide answers to questions he

asked. In most cases Simon neither probed further nor reacted to students' comments. Rather, he would add to the answers given or offer his own answer.

There seemed to be a distinction in Simon's mind between the goal of teaching in general and the goal of teaching science. With the goal of science education, Simon wanted to make major changes in his teaching through teaching for understanding which involved showing students how to develop experiments and doing projects which they could in turn do as they started teaching. By showing students how to develop experiments he felt he was changing his teaching and consequently teaching for understanding would be developed in his students. But from the interview and my observation, he seemed rather to emphasize showing students how to do experiments and not working with them to solve problems. Simon seemed to have picked up the language and rhetoric of reform, which in most cases was vague. Teaching for understanding seemed to be open to multiple interpretations and Simon was interpreting it in his own way.

Further, Simon seemed to attribute the goal of teaching in general to imparting knowledge that students lacked. He asserted that he imparted knowledge to students which they did not have or know, and move on "with my lesson thereafter." The knowledge was taught through traditional methods because "this was something that they should have learned when they were doing their degrees." Seemingly every bit of knowledge that was not scientific, as we shall see, in Simon's class, was taught in traditional methods.

## **Simon in Class**

Simon's classroom was a laboratory with long tables and chairs attached to the floor, all facing the front of the room and the blackboard. Simon stood and spoke from one long table at the front of the room. This was a two-hour class. Fourteen students were present when I visited the class. The class began with Simon telling his students that "I am going to teach about questioning in teaching." He went on to say to them "questions are a very important tool in teaching, especially where high-order questions are asked." He further explained the importance of questions in teaching by referring to a piece of research done some years ago in education. This was followed by asking prospective teachers "why do we ask questions when we teach?" Simon did not give his students enough time to attempt to respond to the question. Rather, quickly he put a transparency on the overhead projector and read the answers:

Questions promote interest and attention. They promote mental activity. They involve trainers as partners in instructional process. They help in obtaining feedback on the trainees' ability to recall, understand etc.

He asserted that there was an "omission in Curriculum 2005 about the importance of questioning." Instead of emphasizing the importance of questioning, according to Simon, the reformers talked about the importance of creativity and evaluation.

With the exception of the one introductory question already described, Simon did not ask questions for 35 minutes, even though he was teaching about questioning in teaching. The teaching was mostly teacher-centered. With the exception of one student who asked Simon to clarify what he meant by "involving trainers as partners in the

instructional process,” the rest of the students took down notes from the transparency for 35 minutes. Simon was depositing knowledge (Freire, 1972) without modeling how questioning in teaching was done. He asked his second question at 11.36 a.m. when he wanted to find out the types of questions a teacher could ask during the lesson

Simon: What types of questions should a teacher ask?

Student 1: A teacher must ask questions that will make students think of what is being taught.

Simon: Yes, teachers have to ask questions that make their students understand what they are being taught.

Student 2: Teachers have to ask open-ended questions and at times ask closed questions.

Simon: Yes, there should be open-ended-questions so that you can allow students to be free to explain further. There should also be closed questions, if you are targeting one response. What else? What are other types of questions a teacher can ask?

Students were quiet and most of them looking down to their notebooks. Without wasting any time, Simon told his students that “teachers should also ask penetrating and probing questions.”

Simon: Why do you think we use penetrating and probing questions?

Student 3: You want to find out more information about what the student said.

Simon: We want to examine and not simply accept answers. We seek further clarification of the answers offered. We’re concerned to have trainees to be more critical in their replies. We use penetrating and probing questions because we want to probe even good answers, and not dismiss wrong answers without probing.

Simon's responses were prepared in advance and written on the transparency. He did not probe the answers that he received from his students. The questions he asked rarely engaged students in a meaningful discussion. At best, he explained further the responses from his students instead of probing, especially the responses given by student 1 and 2. He supplied most of the answers to the questions he asked and gave a summary at the end of this questioning and answer session. Simon seemed to have a goal in mind for the way he was teaching and using the transparency and was not open to heading in a different direction. This was not surprising taking into consideration that elsewhere Simon said that by using different media such as projectors, students could finish the materials they were teaching fast. But it would seem that Simon was using the media at the expense of "allowing students to think, communicate...and encourage innovative ideas and not restrict their activities and prevent them from becoming independent individuals" which is so well articulated in one reading he gave his students and used in class.

Simon changed his style of teaching when he asked students to read questions that they had written in their own introduction of lessons which they had prepared as an assignment to be turned in on that day. His aim was to find out if students had written questions on prior knowledge, which was important for the beginning of the lesson. Each student read the introduction and those who did not have questions in their introduction but statements were asked to go and re-write the introduction with questions. Simon spent some time explaining to those who did not write questions in the introduction how important questions were right at the beginning of the lesson. By asking those students who did not write questions in their introduction to go and write them, before turning in

their lesson preparation, it would seem that Simon was looking for uniformity and not creativity, demonstration or proof of knowledge at the beginning of their prepared lessons.

Next, he quickly went on to ask why questions are asked in the introduction, body, and the conclusion of the lesson.

Simon: What is the purpose of questioning during the introduction, body and conclusion of the lesson? Is there anyone who wants to contribute to this question? Let us start with the introduction. Why do we ask questions at the introduction?

When Simon realized that there was no volunteer to give the answer to his question, he selected some students to read their responses.

Student 2: The purpose of the introduction of a lesson is to find out if students have background knowledge of what is going to be taught.

Student 4: The purpose of the introduction is to link the old knowledge with the new knowledge.

Simon: How do you do it?

Student 5: It depends on what you are going to teach. You can ask questions or show something that will link the new subject matter. Then it is not going to be difficult to start your lesson. You will just refer to it.

Simon: Questions in the introduction are also asked to stir up students to learn. What about questioning during the development of the lesson? Why do we ask questions during that time?

Again, because students were taking time to respond, Simon responded to his own question by indicating that “questions are used during the development of the lesson to

unfold the topic.” He did not try to change the wording of his sentence to give them the benefit of the doubt.

Simon:           Why do we ask questions at the end of the lesson?

Student.3:       To correct misunderstandings.

Simon:           That is right. If you do not ask questions at the end of your lesson, you’ll never know if students understood what you were teaching or whether there had been any misconceptions.

He concluded this section by giving students a verbal summary of why questioning is done during the introduction, body and conclusion. What could be inferred from this summary was that he wanted to be sure that students understood what he said. His manner of teaching could be further understood by what he said to me later: “The course I’m teaching does not allow me to prescribe to students. I do not like to prescribe, but there are occasions when you have to tell them factual information especially in education.” Simon quickly explained that there might be other ways of teaching but what he was doing was to show students that “this is one way of doing it.” By so doing, Simon offered his students familiar, well-tested instructional practices that had stood the test of time. As Goodman (1984; 1986), and Zeichner & Liston (1987) have concluded from their research, most teacher educators maintain a technical perspective towards the preparation of preservice teachers even where the program had identified critical thinking as its primary goal. Simon’s belief was captured by Sarason (1982) who said that the more things change, the more they remain the same. There is always a tendency for someone working with something new, especially a reform, to revert to what is familiar when one has little information and too little opportunity to discuss the ideas with others.

Simon interpreted the reform and filled the gaps in ways familiar to him, creating a mixture of practices.

The last 30 minutes after the 10 minutes break was devoted to a prediction activity. This was an experiment in which students needed to predict the solutions to the problem given. Simon had three candles of different sizes. He lit them and covered them with a glass lid. Prospective teachers actively participated in predicting what would happen to the candles, each giving the reasons for their prediction. When I asked Simon after class why there was an experiment at the end, he said,

I included it to minimize boredom. two hours is a long time for students to be in class, and if you do not come up with something that would arrest their interest, they will get bored and lose concentration. I try to come up with something such as the small experiment I was doing to add up to their content knowledge by doing some experiments.

Boredom in class seemed to have encouraged Simon to bring in an experiment that would make his students want to learn. His other reason was to give basic science content knowledge which he had found to be lacking in his students. He was “showing” his students the “processes involved in developing scientific ideas” by demonstration. It was a demonstration or proof of scientific knowledge, with students looking on. I looked into his readings to find out if there was a trend on how prediction activities or experiments were done. I discovered that the prediction activity fit in well with what prospective teachers were expected to do in class: they were expected to tell Simon what was happening rather than him telling them. In one of the class readings, the emphasis was on the teacher who “should not fall into the trap of telling them (students) in advance what the outcome will be.”



Simon's way of teaching as I observed him brought to mind what Messton (1972) said about professors who did not become instructional role models to their preservice teachers when it came to modeling various instructional methods. His conclusion was that if professors failed to employ the principles they were teaching, they could not expect prospective teachers to value those principles and make use of them when they taught their subject matter.

The question in one of the assignments that Simon gave prospective teachers became the center around which his teaching rested. It depicted the belief that he had about teaching and reforming the teaching of science in high schools, which in turn was influenced by the reform. Most importantly, it was influenced by the African National Party (ANC, the ruling party), which issued a discussion document lamenting the ignorance of a "vast proportion of students leaving the school system, either before or after completing the final year" who were largely unprepared for the rest of their lives. One solution for Simon was to teach science not abstractly but concretely and not very textbook- oriented. In one of his readings, the prospective teachers were encouraged to "learn by doing, rather than following teacher's instructions, and learn without understanding from textbooks." Students would need to be able to solve problems, make decisions, plan, organize and collect information, and have good personal skills such as being able to communicate well so that they could be better equipped to find a job when they left high school. To this end, Simon gave his students a writing assignment based on three questions, related to the teaching of physical science in high schools. First, he asked prospective teachers to explain the different aspects of teaching and learning that had been taking place in high schools that could have contributed to the problem observed by

the ANC. Second, prospective teachers were asked to explain what the problems of teaching of science were, and third, Simon asked prospective teachers to explain how they could go about changing the way students were to be prepared to face the world upon leaving the school system. Simon wanted prospective teachers to internalize the fact that they needed to make demonstrations to students and to teach through projects. He strongly believed that science teachers were “the agents of change in the schools, therefore they should do their best to bring this change.”

Most of Simon’s teaching approach was teacher-centered. When I observed him, the only occasions where there was a shift from a teacher- centered approach to a student-centered approach was first, during the experiment when students were trying to figure out what would happen to the three candles, and second, by when Simon was asking for the students’ responses to the questions they wrote for the introduction of their lessons. Before I could ask him at the end of his class how he thought his teaching went, Simon was quick to explain that

I do not know what was happening to me and the students today. I felt I was not myself and students do not always behave like this. Perhaps it is my awareness of a colleague in the room.

The students, said Simon, were not taking an active part in their learning on that day unless he called on them to respond. Surprisingly, students’ responses were short and Simon did not probe. It looked like teaching that students were familiar with, for if they were accustomed to arguments in class, most of what was said would not have gone by without them asking questions. On his side, Simon did not waste any time in responding to his own questions. The transparency was ready with the answers and his students

copied the answers. As an observer, I had the feeling that students were expected to copy notes and not contribute a lot. This model fits in well with the first type of teaching, which I referred to as "teaching in general," where the main purpose is to impart knowledge. The use of a transparency was important for completing a lot of work within a very short space of time. This was evidenced when Simon said, "I believe in using different media such as overhead projectors, chalk board, and when students see how I use them, they will also tend to use that. They will see how they can save time." In other words, Simon believed that if students used different media, they could finish a lesson "within a very short space of time." It is therefore Simon's belief that using transparencies would help "save time" but in effect, he ended up shortening the time for discussion in class. Since he did not have "longer period of teaching" with the "quality of students we have," he had to use transparencies.

Given that the classroom interpretation was based on one observation because of a class boycott, it can not be the basis for making conclusions about Simon's way of teaching. Nevertheless, the timing of the observation was important because this lesson occurred before the beginning of eight weeks of student teaching. Teaching prospective students how important questioning was and how to prepare lessons was significant since only two weeks was left before they began their practice teaching.

### **Ideas about Reform**

Simon maintained that he had been using the outcome-based approach throughout, but he was not sure if he was doing the right thing. "In fact, I used to tell my students about behavioral objectives. That is basically what the outcomes-based education is about. So they have been always working on that." During the last interview,

Simon indicated to me that he was unsure of what was involved in the new ways of teaching which were spelled out in the National Qualification Framework and later came to be referred to as Outcomes-Based Education (OBE). The contradictions between Simon's teaching and how he explained things could be attributed to this uncertainty about what the reform was all about. He was unsure of what OBE really consisted of and what it meant for his teaching. He had too little opportunity to discuss his ideas with others. As an observer, I was struck by the internal inconsistencies in Simon's understanding of what the new reform was all about, how it worked and what he actually did in class. He contradicted himself either through his responses to questions I asked him or while I observed his teaching.

The complexity was deepened when the reformers, according to Simon, failed to provide training opportunities. The crux of the problem for Simon was that he felt that he was being asked to make a major change in his work, to work in new ways, but he was not educated in how to do this. "Too little assistance is given to us who must change the process." Consequently Simon changed the way he interpreted and understood the change. As a result, he thought he changed, whereas from my perspective it appeared he had a lack of clarity about the change. "Reformers do not directly undertake the task of educating us to understand why change is needed and how to change in order to accomplish the new tasks given to us." Simon held that he had little information about the reform and too little opportunity to discuss with others what the reform meant. Accomplishing instructional change, argued Simon, required learning and support.

Asked if his teaching was influenced by this new reform, Simon said,

To some extent yes, because I relate my teaching to the new curriculum where possible, for example, when I teach them about behavioral objectives. I tell them that you can do that with the children so that they can learn at their different pace, that there should be continuous assessment and so on. But other than that, I do not know if I'm doing enough to include outcome-based education into the curriculum.

The quotation above showed that Simon's major problem was lack of clarity in what he was doing and in what he knew about the new curriculum. He was not clear about what he had to do differently. Simon went on to say that he did not have enough information about OBE to enable him to use it fully in teaching:

To be frank with you, I do not know exactly more details about OBE. That information is lacking. No books are available. By this time, the trainers and people who should train people should be having the information so that they can prepare the people. They are still using the syllabus, which had been used in the early 90's.

Simon's concern here was the importance of teacher educators learning how to do the things that reformers were advocating: to change the way they teach. At the same time, he accused the reformers of not providing information, materials and opportunities in which teacher educators could learn OBE. His problem was a lack of clarity in what he was doing and in what he knew about the curriculum. Although most of what was written in his class readings and what he said were full of the language of reformers, Simon was still unsure of what he was expected to do differently.

Simon was an example of what Fullan (1991) called "false clarity without change," which happens when people think that they have changed, but have only "assimilated the superficial trappings of the new practice"(p.35). He had interpreted the Ministry of Education's mandate to change in practice in an oversimplified way, without

realizing that the changes might have more to them than he realized. His teaching approach also reflected his own simplified view of reform because he did not know more about the reform except teaching in terms of behavioral objectives. He believed that he was changing his practice even when he was not sure about what the reform expected him to do. This was reflected in his simplistic view of the definition he gave of the reform. His methods of teaching included providing opportunities for active involvement of prospective teachers to use a variety of resources. Simon had possibly changed on the surface by using specific materials, “even imitating the behavior without specifically understanding the principles and rationale of change (Fullan, 1991, P. 37). But he had not fundamentally changed. He still treated knowledge as fixed and students as passive.

### **Critical Features in Changing Practice**

In this section, I will look at factors that, according to Simon, influenced and limited his ability to transform his teaching of physical science. For Simon to change or transform his practice, resources in the form of time, materials and personnel were needed. Departmental support, the support of the school of education and institutional support were also needed.

### **Resource Support**

Concerning resources, Simon maintained that “there are resources available for physical science such as the laboratory that is well equipped.” He also made a “lot of newspaper cuttings which are concerned with science education. I use some of those in their final examination.” Through using newspaper cuttings, Simon expected his students

to “know what is happening around in the field of education.” He also mentioned that there was a science laboratory with some equipment, which was relevant to “what they will do when they are in schools.” Apart from materials, Simon took his students on educational tours such as a visit to the science center. He said tours to the science center motivated his students to enter a national competition on science and also to understand scientific concepts. He felt that there should be a resource center for the department where students could get books and journals about teaching, especially the teaching of science.

### Time and Changing Practice

Simon explained that he was hindered in bringing about more changes in his teaching by issues related to time. Time was a concern to Simon, who wanted to teach prospective teachers differently than they were taught in primary and high school. In other words, Simon wanted to teach through showing, demonstration, and teaching for understanding, as he understood it. He attributed his lack of engaging in curriculum change to his workload, the length of time necessary for training prospective teachers, the time taken up by students’ disturbances.

### Workload

In terms of workload, a number of factors came into play, including the number of hours devoted to teaching philosophy and methods of teaching to undergraduates and the number of hours devoted to extra-instructional activities such as grading papers, preparing for classes and attending many university committees meetings. Simon

mentioned that there were two laboratories without a laboratory assistant. When workloads were assessed, laboratory work such as maintaining and tracking the equipment, and ordering new equipment was not considered as an extra load. Simon felt that his workload was unreasonable when he considered that he still had to advise and supervise students. The heavy workload left Simon without enough time to prepare for his classes. He also pointed out that there were also no “books written according to the new ways of teaching,” which made it very confusing to know the “standard” of gauging his students’ performance. His workload did not “give me extra time to try out more things in my teaching than what I was doing.”

#### The length of time for training prospective teachers

Simon felt that students spent a very short time in their training. As a result, “I have little time to teach and bring about long lasting impact on prospective teachers.” As much as he would like to teach in the new ways of the reform, using the resources at the laboratory, Simon complained about the limited time that students had for using those resources: “students are not as exposed as they should be. So much equipment is not utilized to the students’ advantage.”

When they go for practice teaching, they go for two and half months and when they come back they are left with only one month before they write their examination. When they come back from practice teaching, we must solve the problems that they encountered in the field and that means we are left with no time to teach.



The pressures of time prohibit the sort of long-term input, which many innovations require. Time for teaching, according to Simon, was short, and was shortened by the structure of the teacher preparation program at the university. As a result, he did not get his work done well because there are examinations to be written at the end of the year. His criticism about the University Education Diploma (U.E.D) was very clear: “the quality of the students enrolled right now should make us have a longer period of studying”.

Every student knows that he can pass. This U.E.D. is ridiculous. It is something they come and do and they know that they can pass in whatever they do. Training needs time. They have gone through the same system that they are expected to change, and when they are not given time to learn how to change, it is not going to help.

What Simon was saying was that the U.E.D. was not rigorous. Curriculum was watered-down, and it had become difficult to maintain a rigorous curriculum when what was considered important was practice teaching. Nkabinde (1997) voices this same concern by saying that the “University must not be a place of distributing meaningless diplomas or degrees, but it is a place in which building an individual’s intellectual foundation is stressed” (133).

Simon explained how the short time of training impacted his ability to change his practice for the better.

More time is needed to bring about long-lasting change and impact on teachers who are to bring this change. I feel that the exposure that students have during one year of learning how to teach is not enough. It does not encourage prospective

teachers to be critical thinkers and creative. The time that we have allows us to give a cookbook kind of teaching. Students need more time for exposure to try these changes. I try to have extra sessions but students do not come.

He believed that creativity and critical thinking could not come about within the short space of time, especially when some prospective teachers had divided attention during the time when they took methods classes. There were students who were still taking course work when they were supposed to be busy with methods courses. He further used the metaphor of a cookbook to illustrate teaching that was done within a short space of time. By using this metaphor, Simon gave us a picture of a book that contained cooking directions for proven recipes. When applied to teaching one got the impression that what Simon did was to give students the “right directions” or “ways” on how to teach something that was known to have worked for ages. A cookbook kind of teaching might mean giving facts or information to students whose time was short. One could infer that these were what Simon referred to as “facts” in education, which students should know. Time was also needed to work on what students did not learn in their degree program. Simon complained about students who did not have content knowledge and how their lack was slowing him down in teaching the way he should be teaching for he had to give them background information

#### Time Spent in Lecture Halls and the Effects of Students’ Disturbances

The University, according to Simon, was beset by student boycotts. These disruptions of classes “produced disruption of teaching, and therefore shorten the period of doing quality work in class.” Even when Simon attempted to have extra sessions later

on, he said that students did not show up. As a result, “there was not enough time to change the curriculum with all the disruptions.”

Time for changing the curriculum is shortened. You have to finish what you planned for the students for the year, especially students who will be going to teach. The students’ disturbances on campus also shorten my time of teaching. I try to have extra sessions but students do not come. Two years of teacher training would be better.

Simon’s concern about time reflects his desire to finish the syllabus. He posited that there were planned learning areas that prospective teachers should cover in order to complete the course. Therefore, changing curriculum became almost impossible since he was to prepare his students to “write the examination at the end of the year” and to make sure that they had the knowledge that every prospective teacher “is expected to have when he or she finishes his or her training.” Simon concluded by recommending that since “most of our students are very slow to pick up, and with the structure that we have, the quality of students that we have, and the disruptions we have,” there should be “longer periods of teaching if we want to change practice.” Yet it was not clear how Simon would bring changes with a longer period of training if he was not sure of what the new reform was all about. Furthermore, Simon maintained that he did not have the necessary support from his colleagues, the school of education, and his institution to change his curriculum.

There was a further possibility of not knowing what the reform was all about because of lack of the valuable mechanisms for support. We will now turn to these mechanisms of support and discuss further their relationship to Simon’s teaching practice and his attempts to implement reform.

## **Departmental Support**

Simon did not work with his colleagues in developing his curriculum. He brought about changes that he “thought were useful.” Simon felt that there was a lack of working together among faculty:

There is no working together with colleagues. Perhaps others are developing their curriculum. If they are, they are doing it in their own way. Otherwise I do not think there is such an opportunity to work and develop collectively. There is no common ground where we meet. Unless you have reasons for working with someone, you are on your own, and it seems to be the way it should happen.

Collegial support was of importance to Simon, but he claimed there were no opportunities to interact and share ideas with other teacher educators, or to discuss experiences in an atmosphere of collegiality. In the light of the complex nature of the change process, time for collegial sharing, according to Simon helped to facilitate change. Departmental meetings were, in Simon’s view, disappointing. “We are always reporting or hearing reports about things that would not help us in teaching.” Simon’s head of department, he said, was very supportive of “innovations you are doing, but he is very busy. Most of the times he is not on campus.” Simon also pointed out that the budget was dependent on the head of department to be signed, but that the head of the department was not always on campus:

He is not available all the time. The head controls the budget of the department and nothing will be done without him. Although he supports everything that you want to do, his absence slows down your progress because he is not there to approve things as soon as possible.

Simon concluded that his head of department was therefore, not as supportive as he initially said he was. His support was “only lip service in reality” (that is, verbal support), he was not there to do anything for him. He felt strongly that support in one’s area was very important “for one to be able to go forward with changing practice.” Discussion at the departmental level about “the reform that is being advocated” would help in shedding light on “what OBE means, and how we are expected to do it in class.” Because of the absence of the head of the department from campus almost every other week, the concerns of the faculty in “our department are not addressed, hence the disappointing departmental meetings.” Simon was looking forward to a meeting at the departmental level, during which the faculty would discuss “the new reform” and take leadership “in doing what is expected.”

### **School of Education Support**

Simon was full of praises when he talked about the school of education because of the new dean. He hailed the coming of the new dean as an important step forward for the school of education in its efforts to change. He believed that the “new dean is progressive and supportive compared to last year.” When Simon talked about the new dean he described him as an academic- oriented individual who has leadership qualities and is also very productive. The dean, according to Simon, “encourages faculty to go to conferences to get new ideas about teaching, and helps faculty write papers to publish.” What Simon would like to see the school of education do was to organize an academic discourse where faculty could come together and discuss matters of interest to them such as teaching, learning and research. Simon mentioned that under the new dean, such a meeting took place once and Simon thought it was good in terms of “knowing where our

school of education was going in terms of its relationship with the schools nearby.” He said the dean had formed a committee to find out from the schools what their needs are so that an inservice education and training program could be set up to address the needs.

## **Institutional Support**

### Coming Together of University Faculty

The support that Simon got from the university was inadequate. He felt that the institution should organize “meetings for academic discourse” for faculty. He defined academic discourse as the coming together of professors and lecturers to talk about the things that they cared about most: teaching and learning. It was Simon’s belief that in such meetings, “discussions throughout the whole university about the current reform would take place.” The working together of faculty also provided opportunities for one to share more important information found in recent journals. Because the institution was not buying books for the library, nor buying more current journals, the institution was not supporting teaching. It was therefore important for faculty to “come together and exchange ideas within the university.”

### Conferences

While the dean supported the idea that faculty should go to conferences to get new ideas, the institution had limited funding, allowing only one conference annually per faculty. Most of the time when applying for funds to go to a conference, Simon would be told “there is no money.” Simon pointed out that it was difficult to get to know “what is taking place in one’s area unless one goes to a conference.” He asserted that when he

went to conferences, he was able “to develop professionally because of the interaction “with colleagues from other universities and in one’s area. You get to know a lot of things by exchanging ideas with others in your area.” But Simon said that at times it “is difficult to pay for yourself to go for a conference when the university says it does not have money. So, how do you develop, how do you get to hear what others are doing in their teaching when you do not go to conferences?” He felt that when not attending conferences, “he is out of touch with knowledge, especially because our university does not have recent journals and books.”

Simon complained about the inadequate support he received whenever he organized a conference at his university. He thought this had something to do with being a “junior member of faculty, who could not get things done for him at a fast pace”. It would seem to Simon that “the more extra work you do, the less support you get from the university.”

#### Rewards and how they affect changing of practice

Promotion could have an influence on what Simon changes in his practice, although he did not want to concentrate on it. He says he has been waiting for a promotion for sometime and it has not yet come. In his own words, Simon said “I finished my M.E.D. long time ago, and I never got any higher notch. That has disturbed me a bit.” Simon was a senior lecturer and for him to move from a senior lecturer position to an associate professor position within the new guidelines, he would need a doctoral degree or the equivalent; outstanding teaching experience at a tertiary institution; and outstanding scholarship. In addition, he would be required to demonstrate

outstanding unpublished work; creative work of outstanding quality; and outstanding community service work. When these new guidelines came, Simon says he was “long involved in what they are saying”. He felt that he had fulfilled the requirements for promotions but there was no promotion

Simon put a lot of importance on community service. He felt that even when one of the requirements of promotion is community service, it was not given the importance it deserved in the decision.

Community service is important, and should be taken as such in promotions. We must give back what we have learned by, say for example, initiating a project in our community. People who are due for promotions should also be judged on community service and not solely on research and credentials. I do not mind doing extra work even if I am not remunerated, but as long as it is beneficial to the students and the community.

Although Simon was aware that the community service did not count much in promotions, he continued to stress that it was important because he felt that in performing community service, one was giving back one’s education to the community. He felt that community service should be equally important when “one is considered for promotion because that is how people in the community get to know your specialty.”

I have presented papers, enough publications but there is no promotion. I’m doing so much you know that they should consider that in my promotion with the exception that I do not have a Ph.D. I do not work by promotions. Doing your work has got nothing to do with your promotion I believe in doing my best.



When asked if he is bothered by not being promoted, he said, “Of course I do feel that I’m not getting promoted, and that is what I feel, but there are rules and regulations. At the same time I feel that people should not be held back when they should be promoted.” Although Simon said he did not work for promotions, his statements indicated that incentives do affect what he does, for he talked about salary increments.

### **Summary of the Chapter**

Simon did not divulge his pre-South African experiences as a teacher, and this has left us without information of how he taught. But when he came to South Africa, the community played a very important role in how he taught. A high failure rate would make the community lose respect for the teacher who is looked upon as an expert. He believed in clarifying knowledge by imparting it. Yet by imparting knowledge, Simon contradicted his belief in having students explore and discover knowledge on their own. Showing and demonstrating how to do experiments were also important to Simon. Showing implied telling, yet his aim was to transform science. In transforming science, students were actively involved in discovering knowledge, yet in Simon’s practice students’ participation was minimal.

Simon was a good case of a complex approach to reforming practice. He developed a false picture of change in his teaching by merely using the rhetoric of the reformers. He used terms that were used by reformers, yet at the same time, his explanations did not measure up with what needs to be done. What was interesting about Simon was that even in situations where he claimed he did not know what the reform was all about, still, he used terms such as teaching for understanding, transforming science

education, critical thinkers and creativity which are commonly used in speaking of reform. But when he taught, he did not, in most cases, enact the concepts. Simon did not seem to know that the skills he wanted his students to learn, such as analyzing, interpreting and problem solving, were the skills that the reformers expected him to teach and model.

Because there were no opportunities for discussing with others how to change from a teacher-centered approach to a student-learner approach, Simon's knowledge about his own practice was limited. He thought that he had changed, but he did not understand the changes he needed to make in his class. He did not understand what the change was all about, yet in his readings and language, Simon stressed the skills that reformers suggested students ought to have.

Support was also important to Simon's practice. The most important support Simon wanted was time. However, what was not clear was how changes could be brought about when he was not sure about the meaning of reform.

## **Chapter 6**

### **KENNETH: TENSIONS AND CONFLICTS IN CHANGING PRACTICE**

#### **Introduction**

Kenneth had fourteen years of teaching. He spent three years teaching at secondary school; six years at a college of education; and five at the university. He took an economics methods course during his professional training and he now teaches prospective teachers methods in economics and media. His experiences at all levels of education have had a great impact on his views of students, teaching and learning. His experiences have also impacted how he embraced new visions of teaching. Reformed ways of teaching imply greater demands on the part of an educator, to select tasks, orchestrate classroom discourse, and seek connections that deepen understanding of the subject matter. Kenneth welcomed these new visions of teaching stipulated by the Ministry of Education although with some reservations. Kenneth's sense of accountability to his students and his commitment to their success is explicit in all his discussions.

When I had my preliminary interviews with Kenneth to find out if he was teaching in the new ways outlined by the Ministry, he confirmed that he was. He argued that prospective teachers should be "exposed" to the new ways of teaching because "they need to know what is current and should be helped to understand what is involved in those new ways of teaching." Kenneth had done a lot of reading about the reform, and whenever I asked a question about it, he was quick to refer me to the document(s) with the relevant information. But into our second interview, I discovered that Kenneth still

used traditional ways of teaching in his efforts to help students succeed in the future. He actually believed that the new ways of teaching were not different from these traditional teaching methods and that reformed teaching methods were simply coming back masked in a new language. The traditional way of teaching, he asserted, was camouflaged in the new reform, giving the impression that the old had been concealed in the new. Kenneth believed that good teaching had been around for a long time, and that nothing had changed. He did not believe that the proposed ways of teaching were uniquely new:

We have been doing this, but it is just coming back in another way. These are not different teaching methods. We are still doing the same things. When you teach, you are concerned about how you make students understand the lesson. As much as we would like to say that there are changes, one could say that there are very few changes, except that the old order has been camouflaged. They talk about creativity instead of teaching methods.

Kenneth was convinced that selecting a method suitable for teaching a particular lesson was a function of creativity. His main concern was whether the students he was teaching understood the lesson. "Teaching for the present and preserving what is already there," as he put it, were at the center of his instructional goals. Kenneth's responses are fraught with conflicts as he explains his views about teaching and learning.

In this first section of the case, I describe in detail Kenneth's early experiences as a student and then as a teacher. The aim is for this description to help us understand what Kenneth went through and how the experiences may have influenced his early teaching. In the second section I describe how Kenneth's beliefs and experiences interact with the new curriculum, and the challenges and tensions they pose to changing practice. Finally, I

describe in the last section how institutional and instructional factors impact Kenneth's practice.

## **What Kenneth Brought To Teaching**

### Experiences as a Student

Kenneth had "good" primary school teachers "who would teach you something that you were sure to get in the examination, and when the year ended, you would pass." What was important to Kenneth's teachers was that "you memorize and then succeed." A teacher he remembered most in primary school was "good in teaching and also in the community." He explained that a teacher who was good in the community was "first, a teacher who had a good record of passing students both in the internal and external examinations and second, a teacher who helped solve students' problems outside class." Kenneth rated highly those primary school teachers who taught to the examination. And as an example of helping solve students' problems, a teacher, according to Kenneth, could pay school fees for needy students.

He talked about his secondary school experience with emotion. His secondary school teachers were mostly white. He recalled "one teacher who used to ridicule me and say negative things about my facial features. That was bad for me because I could not concentrate on what was taught." But he also remembered a woman teacher:

Her personality was bad but she shaped us in a different way. She knew her subject matter well. She used to prepare one good lesson in two weeks. She taught us formulas for solving mathematics problems well. You would be encouraged to learn what she taught although when I look at it now, it was all memorization.

Although Kenneth liked her style of teaching, she used to discourage them from getting further clarification on problems they worked on. He believed that in this way, his teacher was encouraging them to memorize. He also believed that his teacher was prejudiced, for she would say to students who asked her challenging questions, “You do not have to ask that question because you will not be going to that level.” Most of her teaching was teacher-centered and students’ participation was minimal. Students’ participation, Kenneth went on to explain, was only called for when his teacher wanted to find out students’ comprehension or to review materials.

From Kenneth’s comments about his secondary school teacher, we can conclude that she had limited knowledge of her subject. This was evident when Kenneth said that “Sums were worked out at home, but then if you gave her another sum in class, she would not do it.” What was important to Kenneth was that his teacher demonstrated how to “solve a given mathematical problem for us, and we followed her example.” His image of teaching was that of a teacher showing or demonstrating to students how to solve a given problem and how to follow the steps without much understanding of how one arrived at the conclusion. This seems to support Ornstein et al’s claim that traditionally, large amounts of memorization and the application of formulas to solve neat and limited problems (Ornstein et al, 1994) characterize school learning. Through this way of teaching, Kenneth experienced going through the materials quickly without encountering the ideas embedded in the problems and in their solution. Most importantly, he learned to depend solely on his teacher for learning. Wilcox et al, (1991) point us to the origin of this dependency as they discuss two types of help given in the classroom— help given through telling, which results in dependent learners, and help given through questioning

and collaborating, which results in empowered learners. Most of the help that Kenneth received involved being told how to solve problems and what to learn. Kenneth and his classmates would wait for their teachers to tell them the scope of material for the test. They would not read and learn on their own without being directed by their teachers. These habits turned him into a dependent learner.

Undergraduate education was, according to Kenneth, “horrible.” The “ugliness” of professors’ rudeness stood out for him. His classes left him discouraged as most lecturers would tell their class way before the end of the year that half of the students were going to fail. Most of his lecturers, said Kenneth, were notorious for failing students for not “memorizing word for word for tests or examinations.” Memorization was “the order of the day during my undergraduate studies.” It was during his undergraduate studies that Kenneth learned explicitly that in order to succeed, he needed to do what lecturers wanted him to do: “to reproduce what was in the book or what I was taught word for word.” This is how he put it:

There were lecturers who decided the fate of our lives at the university by 1%. As long as your responses to questions were not word for word from the book or what they said, you would fail. This taught me to tolerate things. I went and worked and found out that what was needed to get you a job in the world of work was only a certificate. So when I came back I concentrated on learning the way I could quickly pass so that I could get a job.

The way Kenneth could “quickly pass” was through memorization because professors made undergraduate studies very tough. When he got frustrated, Kenneth left the university and found a job. The job experience allowed him to know the sorts of skills needed in the world of work. From his experiences during his undergraduate study,

students had to memorize for the purposes of passing the examinations and getting certified to work. What this meant to Kenneth was that university degrees did not certify a specific body of knowledge and skills. As a credential, the degree seemed to have no credibility. It did not validate a student's possession of any particular valued knowledge or skill base.

Teacher education lecturers were equally bad for Kenneth. "They made us memorize theories of teaching. You memorized and got high marks. Those who did not were given low marks." Only one teacher educator impressed Kenneth by asking students "to show understanding when responding to questions." It was during his teacher education that Kenneth lost interest in rote learning. This teacher educator was instrumental in making Kenneth see no value in memorization because most of the things that he memorized "were forgotten immediately after writing a test or an examination." Because Kenneth wanted to understand what he was learning, he "would write what I was taught in my own understanding." As a result, he frequently received low marks.

About his teacher education Kenneth remarked that "only 1% of what I learned helped me to get a positive attitude about teaching." As a prospective teacher developing his emerging identity, Kenneth relied solely on what he already knew as a student (Holt-Reynolds, 1990). Elaborating on this point, Kenneth said,

It is very difficult to say this is the very method of teaching. When you are teaching, you can come up with your own teaching methods from experience that has worked for you.



As a teacher educator, Kenneth believed in sitting back, looking at his own teaching practices and their effects upon his learners, and considering which method could be useful in the future. He was not comfortable with methods of teaching that were proposed by people not directly involved in classroom teaching. Fullan (1991) supported this critique by saying, "... the strategies commonly used by promoters of change frequently do not work because they are derived from a world or premises different from that of the teachers" (p.130). Kenneth did not find his teacher preparation helpful. He believed that the best teacher was his own experience in the classroom. Researchers, including Lortie (1975), Howey et al, (1996) suggest that many teachers would concur with Kenneth. It is widely accepted that formal teacher education has an important but secondary influence on teachers and practice. The latter, it seems, is indelibly imprinted by life, especially school experiences prior to formal programs of teacher preparation.

### **Experiences as a Teacher**

When Kenneth started teaching, he taught the way he was taught. He was quick to say, "things rub on you" when I asked how he taught the first years of his teaching. His belief was that for students to learn, he needed to give them a lot of work and make them do what he spent his years in teacher education program opposing memorization. While Kenneth was critical about memorization as a way of learning, he accepted memorization in his own teaching. He argued that "memorization still has a place in learning." As a student, Kenneth hated rote learning, while as a teacher, he saw memorization as appropriate, though recognizing that ultimately, understanding was of paramount importance:

I hated memorization without understanding, but immediately I understood what I was learning, I enjoyed it. While memorization is dangerous, it should be used with caution. Some will say do not memorize, but I differ with them. I say memorize with understanding, as long as you understand what you are memorizing. There is information that needs to be committed to mind.

Kenneth believed that at a later stage, a sufficient level of understanding might develop. This reflected a shift in his views about learning and teaching. In his teaching, he had gained the experience that “not everything could be understood without committing to memory.” On the one hand, memorization was still important because “there are certain facts that have to be taught and learned.” On the other hand, Kenneth knew that there were limits to memorization, such as forgetting material after writing an examination. He believed that understanding could occur after memorization took place. Kenneth’s thinking about the issue of memorization and understanding can be summarized as follows:

First, Kenneth viewed good teachers at the primary school level as those who taught to the examination. He believed in committing everything to memory in preparation for the examination. Kenneth held the same view about his high school mathematics teacher, asserting that she knew her subject matter well. Although she was at times lazy in preparing a lesson, when she finally did prepare a lesson once in two weeks, it would be a good lesson- good in that she demonstrated useful formulas for working out problems. From his primary school to high school level, rote learning, according to Kenneth, was useful and important.

Second, Kenneth believed that understanding what one was learning was more significant than memorization. This view was nurtured by one teacher educator and left

an indelible mark during teacher education program level. But Kenneth had less chance to develop his own subject matter understanding, for almost all of his teachers expected him simply to reproduce the prescribed textbook.

Third, as a teacher educator, Kenneth believed that memorization was good. He believed there was important information that students needed to commit to mind. He argued that memorization still had a place in learning.

Tensions and conflicts concerning memorization seem to exist at all levels of Kenneth's education. Although he believed in rote learning at the primary school and secondary school levels, he opposed it in his teacher education program level in support of learning through understanding. It would seem that by the end of his schooling Kenneth realized that it was unrealistic to do away with rote learning completely, due to its value in learning. He maintained that memorization should be used because there were facts to be remembered, and one could only remember those facts by "committing them to memory." The understanding that Kenneth referred to, seemed to not take critical thinking into consideration. It would seem that when a concept is explained over and over again by the teacher, students have to accept the explanation without integrating their own experiences into their understanding. Also, Kenneth had earlier on indicated that creativity could not be expected from students who are not using their own language. What then are Kenneth's views of teacher education students' learning and teacher educators' ways of teaching?

## **Ideas about Students' Learning and Teaching**

Kenneth expressed two opposing views about teacher education students' learning. First, he held the view that there should be "willingness to learn on one's own." In other words, Kenneth wanted students to be in control of their own learning by questioning what they were doing and by examining and re-examining themselves and their actions. Fullan (1982), supports this view that students who are willing to learn on their own should possess the "critical skill of learning how to learn." Kenneth believed that students who were willing to learn should be able to search for and discover information on their own.

Second, Kenneth also believed that students should learn by "being taught what to do." He strongly believed in preparing teachers to fit into a classroom by using instructional patterns that had been around for some time. While Kenneth held the view that students should learn on their own, he also believed that students learned by being shown what to do. Kenneth thought these two conflicting views of learning could be brought together in one lesson. He did not seem to realize that what he was saying was contradictory.

Kenneth was also against the "relaxed nature of learning" which "comes with the way in which students work in groups" to search for and discover information. He felt that if students were teaching themselves in such a relaxed atmosphere, they would not learn. Kenneth believed that students should not be given too much freedom to select what they wanted to learn. He maintained that classroom activities in the new ways of teaching are without a clear purpose, resulting in permissive education. Consequently, Kenneth called for the preservation of the status quo. He seemed hesitant to move away

completely from the traditional methods of teaching to what the reform called for him to do in class. This concern was probably justified in that the examinations were still geared to the type of thinking endorsed in his classroom instruction.

Students should learn, said Kenneth, for “survival because we are living in an uncompromising world.” This is a world which does not feel pity for a person who does not have the necessary skills to get the job done reasonably well. Getting certified seemed to be a way of survival, without which, one could not expect to get a job. Embedded in this belief was a central concern which drove Kenneth’s way of teaching: “teaching students in a way that would enable them to go through their examinations well and get jobs.” As a result, Kenneth taught students techniques or methods that could be transported directly to the classroom. Because of the uncompromising world, Kenneth taught “for the present and then later life.” He held a strong view that students should be taught to meet the challenges that are experienced in schools now so that they could survive. Instead of throwing away everything, we should “preserve what was already there.” He believed that “not all of old ways of teaching should be thrown away, but some of it must be preserved.”

The role of teacher educator, Kenneth believed, was “to teach rather than being a facilitator, for there are certain things that have to be taught. If he does not teach, students will not learn.” Therefore, it would seem that Kenneth believed that knowledge was fixed and given. As such, it should be imparted to students as it was. When Kenneth used the word “teach,” he meant a one way didactic form of instruction. Consistent with this belief was that students learn from being taught or shown what to do. But this was a different emphasis from his earlier emphasis that students should be willing to learn.

Interestingly, Kenneth laid emphasis on preparing teachers to deal effectively with the real world of schooling, such as the conduct of lessons, teaching methods, and the management of classes. Here the stress was on practical ways of carrying out these approaches. This orientation fostered an interest in demonstration lessons, and exemplary models (Carter et al, 1996). This view seemed to be fixed on the premise that mastery should precede creativity. Teaching could change to express creativity after students have mastered the subject. He emphasized the importance of knowledge on how to teach and how to make lessons more interesting so that students may want to learn.

As a teacher educator, Kenneth is pointing out the complexity of having to prepare teachers for teaching with new and unfamiliar practices that might not eventually be used. These unfamiliar practices worry him. Kenneth explained that these practices get abandoned when students go into full time teaching, and time is wasted at university by preparing students with methods that are frequently abandoned in schools. He felt that the new visions of teaching are flawed and until the dilemma is solved, he is going to prepare his students for the present and with the methods that are conventional. However, Kenneth realized the tension that caused him to take into consideration the needs of his students. He felt “compelled to teach them (students) how to use new ways, for when students go for job interviews, they are asked about Curriculum 2005.” To that end, Kenneth spent some time in his teaching explaining what the new reform was all about, although he had many problems with the new reform.

Therefore, Kenneth did not use the new ways of teaching often in his class, except when he was showing prospective teachers how to use them to “survive” job interviews. Kenneth’s decision to present new ways of teaching so selectively showed sensitivity to

his students' needs that we talked about elsewhere in this chapter. This is an example of what he meant when he said, "students should be able to adjust so that they can know what is happening."

### **Kenneth's Teaching and the Influence of the New Practice**

Kenneth believed that what determined the method of teaching in every situation was "the content, language, background of students, culture, level of education and whether English is the first or second language of the learner." Kenneth saw the proposed new ways of teaching as disadvantaging towards students for whom English was a second language. He believed that a student who is not a first language speaker is battling with the subject, language, and culture.

#### **Language of the students and changing teaching**

Kenneth acknowledged the benefit of discussion for his students' learning, and at the same time he expressed reservation about its use in classrooms. He recognized the challenge of discussion for students whom English was a second language. The new ways of teaching, according to Kenneth, do not take into consideration that there are some students who cannot express themselves in the official language in ways that would help them learn. To Kenneth, changing curriculum should take into consideration whether or not students are first or second language speakers. His experience in teaching suggests that group-work or any discussion oriented approach cannot serve well those whose first language is not English, for these students cannot express themselves as well. He

disagrees with the requirements, especially in “assessing students through expressing themselves” in English:

If you talk about students expressing themselves, you have a problem of second language students, let alone writing the language. You cannot compare a first language speaker with a second language speaker. One will have an advantage over the other. If you say the student who is a second language speaker is not creative enough whilst you are referring to his expression, then I have a problem because communication in English has nothing to do with creativity. It is just that it is your mother tongue. If you are going to compare first and second language speakers concerning creativity, that is an unfair comparison.

Kenneth holds that creativity cannot be judged by how one expresses oneself in a foreign language. A person can only express himself well in his mother tongue. Baine and Mwamwenda (1994) support Kenneth by saying that the use of English forces students to learn and compete in a foreign language and they are always at a disadvantage when competing with first language students.

In Kenneth’s view, a teacher’s priorities and values are formulated in the mother tongue environment, and anything outside that environment is a cognitive adventure. He seems to be uncomfortable with the discussion method when it is used with students who are working in a second language. It is not that Kenneth does not want students to learn through discussion methods. He knows the benefits of this method. In fact, he claims that the discussion method is “the key to understanding and discovering new knowledge.” Rather, Kenneth is arguing that the use of foreign language would not help some students to develop a strong sense of confidence and stimulate creative thought. Hence it cannot be used for judging whether a student is creative or not. Like Fullan (1991), Kenneth believes that changes are being attempted without “careful examination of whether or not



they address what are perceived to be priority needs.” He feels that reformers should be thinking about “how do we get second language speakers to improve their English” since it is the medium through which they are taught.

Kenneth believes that language is one hindrance to changing the curriculum and that those who are proposing those changes recognize a problem. When African students participate in the world of knowledge, they should be fluent in their language and when language is used properly, it “enables its speakers to problem solve”( Nkabinde, 1997, p.111). Like Nkabinde, Kenneth believes that most students whose language of instruction is not their mother tongue cannot be fully creative, creativity being one of the exit outcomes in the new reform: “Students should be able to display certain skills when they finish, mainly they should be creative, and be critical thinkers” (Pretorious, 1998, p.90). To Kenneth, these exit outcomes may not be exhibited in some students because of language problems. He holds that “a discussion method is good when students do not have a language problem.” He questions how teacher educators can “judge students’ creativity when they (students) cannot express themselves in the first language which is not their mother tongue?” Therefore, according to Kenneth, language is the number one problem in changing the curriculum.

### Background, Culture of the Students and Changing the Curriculum

The background and culture of students, according to Kenneth, play a significant role in changing practice. Because most of the students in his area are disadvantaged, Kenneth uses lecture method, a method that he believes will be relevant to their situation. He asserts that the new ways of learning might not be suitable to all students. In

Kenneth's view, changing practice does not rest only on "what is suggested by those outside the classroom, but by those who deal with students every day, teacher educators who know students' backgrounds."

Consequently, he was not happy with methods, which do not spring naturally from the experiences of educators. Moreover, he explained how, in order to change the curriculum, reformers needed to take into consideration different contexts. He found the thought that an educator could use any strategies of teaching to any group of students unsettling:

I do not want to say that my teaching is influenced by this new ways of teaching. I think looking at teaching methods influences my teaching. I look at teaching methods as a whole. Any method is suitable depending on who is the learner and who is the teacher. The method that I can use to a particular group of students at this university will be totally different from the method I will use when I teach the same thing at 'Grandville' university (in a city). I will be forced to explain things that are not necessary with a group there because most students are unfamiliar with the subject matter.

Kenneth seemed to argue for adjusting teaching to learners' situation. He strongly felt that he could not use the same method to teach students at a university that was situated in a rural area as he would to teach students at an urban university. He thought was that because of the students' unfamiliarity with the subject matter, it would be necessary to explain even the minute details to allow students from rural settings to understand. Instead of students from rural and urban areas working together and being taught with the same methods, Kenneth seemed to assume that students will work in a particular environment, one that was restricted to the kind of background they come from. He was

not interested in preparing them for a world in which versatility and the ability to adapt would prove to be of paramount importance (Hartshorne, 1989).

Later in the interview, Kenneth conceived his role as a provider of information to students in disadvantaged areas. He felt strongly that a teacher educator could only be a facilitator where subject matter was already familiar to students. In the case of his students, he did not want to let his students discover unfamiliar information on their own without his showing the way.

If you are teaching students who are disadvantaged about Internet, you lecture, passing information. In a case where you have students who have Internet at home, it will be different method. You will be a facilitator and not start at the lowest level. You have to be on par with them, maybe you may discuss, or even allow them to have some kind of seminar.

He went on to say:

We could say that in some areas we are disadvantaged but there are instances where we are advantaged. There is no reason why an educator cannot act as a facilitator when teaching about environmental studies because our students know the situations in the rural areas better than those who are surrounded by the city.

On the one hand, Kenneth saw himself as a provider of information to students in disadvantaged areas because he thinks they lack experience. On the other hand, where students were familiar with the subject matter, he acted as a facilitator. Kenneth no longer argued about the strong influence of language in changing the curriculum. It would seem that if students are familiar with the subject matter, their language problem was solved.

It was Kenneth's beliefs that the development of the country had an effect on teaching methods:

Teaching methods should be combined depending on the set up and how the country is developing. For example in the African culture when it comes to discipline, the child has to listen to what the parents say and that can be translated to school. But immediately you talk about a relaxed atmosphere in the classroom, no learning is going to take place. Learning will really mean a number of things depending on the country.

He seemed to interpret classroom learning as an exercise of obedience by African students who were expected to do what both the teachers and parents tell them to do. This view puts a high premium upon classroom control and teacher dominance. Studies on attitudes about education in the U.S have found that traditional ideas and values such as belief in strong discipline and acceptance of established authority are very common (Cohen, 1990). Commonly, most African students bring these deeply rooted ideas about discipline to their schooling. Such ideas are embedded in their upbringing and their pedagogical experiences.

What we can infer from Kenneth' statements is that the school should not be too different of an environment from the family environment. Kenneth was also reminding us that this kind of careful scrutiny of culture needs to ground change in a real instead of an imagined sense of what is possible. He maintains that the cultural context of students has to be taken into consideration when deciding on methods of teaching. Kenneth saw discipline as being compromised by these new ways of teaching, and as a result, learning in the classroom was less effective. His main contention is that if there was no strict discipline in the classroom, or if there was a relaxed atmosphere in the classroom, such

an atmosphere would erode the respect in the home. “Students would talk `back to and challenge their parents” when they were being corrected. Kenneth seems to be concerned about the issue of consistency between what the school teaches and what the home emphasizes.

Asked what he was teaching prospective teachers since he had already said that there was nothing new in the new ways (methods) of teaching, Kenneth said that he teaches them different strategies of teaching as stipulated in the Curriculum 2005 and applies those that are possible in his classroom, such as the project method. “I give them projects so that they can learn to research information, that is, to collect, organize and present the data.” During my observation, which will be discussed later in this chapter, prospective teachers presented their research on teaching methods. Kenneth encouraged them to participate through discussion after each presentation. The students tried their best to understand and evaluate the information which they were given by the presenters, although it seemed Kenneth did not offer them enough time to debate the issues.

### **Teaching at Present and the New Curriculum**

As indicated elsewhere in this chapter, Kenneth relied on methods of teaching or strategies of teaching, which he accumulated through years of experience. He had developed ideas about what students need to know about teaching, and that knowledge has guided him in his teaching. The focus of this instruction was on the mechanisms of preparing a lesson and delivering it. Kenneth believes that “one has to find an appropriate method of teaching; there are to be objectives and they are to be realized in the lesson.”



At this point, it is worth introducing Kenneth's classroom to help us understand what he does with his students. This hopefully, will shed light on how he was or was not changing his practice.

### **Inside Kenneth's Classroom**

I observed Kenneth in a fourth year Economics methodology class. His class was not full on the day of observation, due to the imminent class boycott. Students were not sure if Kenneth was going to hold class. As we stepped out of the office, Kenneth's students were waiting outside the classroom with other students who were looking at the movements of the police in their armed vehicles, bracing themselves for this boycott. Kenneth's students went into their classroom. The classroom was orderly with the students sitting in a circle that opened out to the podium. Kenneth sat with them. He explained to the students that they were going to take turns presenting their projects and he encouraged them to ask questions to the presenters at the end of each presentation. "You are going to present your projects today, and you will have time for discussion after each presentation." Most students seemed to be unfamiliar with how to present their projects. This was evident when some students started asking if they should present everything they had written or just give summaries. Each student had researched a different teaching method (strategy). Before class, Kenneth explained to me that he wanted each student to present a different method of teaching so that "they could teach one another what is involved in those methods, and they could know what the strengths and weaknesses are when using those methods." Students who presented turned their written projects in at the end of their presentation.

The first student presented on the textbook method. Although students were sitting in a circle, the presenter decided to speak from the podium. Only two students and Kenneth asked questions. Here is a transcript of the interaction that took place after the first presentation:

Student A: You said if textbooks are relied upon heavily for class work, students come to place too much faith in written words. What is the use of textbooks? Why do we have textbooks?

Presenter (P): Textbooks are a guide in what you want to do. You do not have to follow the textbook word for word.

Student B: A textbook is a syllabus in schools especially here in South Africa. If you do not know the textbook, then you do not pass. Topics which are prescribed are important.

Student A: Look at our own situation here. Our education wants memorization, and if we do not follow the textbook closely, the students will fail.

P: If a teacher supplements the textbook with other materials, students can see that it is not only what is in the textbook that they need to know. But I do not know, I really do not know if you can find information...Let us try to get it for the sake of the students.

Student A: Not until exams do not follow the format of prescribed books.

What is significant to note are the kinds of ideas prospective teachers have about textbooks. Student A asked what the use of textbooks was after the presenter had indicated that textbooks should not be heavily relied on. The response that the textbooks should be used as a guide triggered a reaction from student B, who indicated how textbooks were used in the South African context. According to student A, students needed to follow the textbook closely, due to an education that required rote learning. The presenter commented that it was important for prospective teachers to get other



materials to supplement the textbook. Interestingly, the presenter was not sure if supplementary materials could be found. But student A did not think one should busy oneself with getting supplementary materials unless the examinations are done away with. The discussion continued:

Student B: Where do you get supplementary information without good libraries? There are no books here.

Student A: Actually textbooks make life easier for the teacher, especially a new teacher who does not know his or her subject matter well. Say they give you a Standard 10 (the equivalent of 12<sup>th</sup> grade), you must follow the book in your teaching because you do not want the students to fail at the end of the year.

Kenneth: The question is, can you supplement information in the textbook?

Student B: No. You can only supplement the information in the textbook with good materials. I do not think we have places to get that.

Kenneth: The challenge is for the teacher to get materials to go with what he or she is teaching. It will need a teacher who is actively involved in the learning of his or her students to get materials if they are not readily available. We also have the challenges of lack of teaching materials especially now that the government is changing the way of teaching.

In this presentation, Kenneth and some of the students, articulated how they felt about textbooks. In the above responses the students gave supremacy to teaching through the textbook. The role Kenneth assumed was to ask questions and to point his students to new problems associated with teaching. He pushed his students to consider weaknesses of the new reform, that is the government did not provide relevant teaching materials.

What can we make from the above discussion? First, it would seem that students have learned to put their faith in the textbooks due to the fact that examinations follow the topics in prescribed books. It would be risky not to follow it closely. They cannot

teach with considerable independence from the textbook since most teachers' design their lessons with only the end of the year examination in mind. As a result, they seem to keep pace with the textbook in their lesson. Second, students are not just concerned about the examination as the reason for using textbooks, but they also lack good alternatives. There are no good teaching materials to free teachers from the tyranny of the textbook. Third, textbooks act as a safety valve for those teachers whose subject matter is thin, and in cases where such a teacher has been given a class that takes an external examination such as standard ten (12<sup>th</sup> grade). Even prospective foresee a way of offsetting their training limitations by using textbooks.

Kenneth finished the discussion on textbooks by saying that they should go to the next presentation. What was striking was that Kenneth did not give students enough time to critically evaluate the textbook method beyond how it should be viewed in the classroom. While they were still arguing, and at a point where other students still wanted to join the discussion, Kenneth stopped it. Knowledge seemed to be presented by the students with the intent that others would accept it. For the most part, Kenneth did not challenge what students were arguing about by asking penetrating questions. Zeichner and Liston (1987) call this type of knowledge predominately non-negotiable.

The second method of teaching that was presented by a different presenter was the "Problem solving method". Problem solving was viewed as a separate method rather than a strategy to be integrated with skill development. The presenter was not clear about this method which was a good indication that she copied it from the book. She knows that a teacher should function as a guide, leader, supervisor in this method, but other than that she could not give relevant examples when asked.

- Student A: How is this method used in the classroom?
- P You can give students problems to solve, like in mathematics.
- Student B: The teacher must create a stimulating environment for students to work in. Can you explain this environment? How can you do this in this class?
- Presenter: I said you could give them problems to solve.
- Kenneth: Problem-solving method should be pursued only after basics have been mastered. You can use groups and allow students to think together. Move around supervising to see if they are doing the right thing.
- Student C: You emphasized that when teachers use this method they must remember that students are continuously active with routine activities. What are routine activities?
- Presenter: Taking notes, answering questions, writing tests, writing summaries.
- Student A: How can students be active with routine activities when they are making discoveries or to arrive at conclusions by themselves through self discovery?
- Laughter
- Student B: I do not understand really how this method works.
- Presenter: The teacher acts as a guide and not as a teacher.
- Kenneth: You can take notes in any lesson and method of teaching and write summaries.
- Student C: But why should we emphasize routine activities in this method when the aim is to discover knowledge?
- Kenneth: Anyone who wants to respond to that question?

The students who asked questions were asking good and important ones, but the discussion was very short and the presenter's responses to the questions indicated that either she was not well prepared or that she was unsure about this method. Kenneth acted as a facilitator, but he also did not probe further the responses. His contribution was concerned with instilling his beliefs about problem solving to the prospective teachers, that is, that it should be pursued only after the basics have been mastered. The presenter was also confused because she did not know how the method could be used in class until Kenneth came to her rescue.

When the third student was about to present, police started throwing teargas and students who were outside ran to safety. As a result, Kenneth's students had to be released too.

Kenneth gave me only one document on microteaching, which he prepared in 1997. In microteaching, students learn teaching skills, and sometimes he gives "practical demonstration of certain teaching skills." The document was not very helpful in terms of seeing Kenneth's thinking as he planned the course. I went to his office several times to ask for documents which he was using. He said that the microteaching document was the only one he could give me and also referred to me to all reform documents he had given me.

### **Class size and Change of Practice**

While Kenneth was open to the possibility that there were alternative procedures that students could learn, Kenneth was aware of the limitations of big classes and concentrated on teaching through the methods he knew well. He did not like the way he

taught due to the fact that “I have many students and in most cases if they (students) ask questions, it would be questions that will be asking for clarification of a point and not discussion.” His main concern throughout the interview was big classes. “Students learn well when they are in smaller groups. With a smaller group you can discuss well, but in big groups you cannot make it. You rarely have discussions.” He perceived that he could do a better job of teaching in a small class, and that he could have more time for teaching and for students learning. But when I observed Kenneth, he encouraged his students to ask questions after each presentation in a class that he told me was normally a big class. What was interesting was that Kenneth did not lead the discussion. Students themselves started a question-discussion session. Students offered both presentations, asked tough questions and pursued them. Yet Kenneth believed that the new ways of teaching could not be successful before solving the problem of large classes which prohibited him from having discussions. He insisted that discussion was minimal in large classes, resulting in teaching that was not effective. It would seem that Kenneth had forgotten about the influence of language he highlighted as a problem earlier on. He allowed discussion in his class, and although only few students took part, it was a good indication that the potential was there if students were given the chance. It was also not very clear how he was going to solve the language problem even with a small class size:

As much as I would like to have a lot of interaction in my class, I have many students who I cannot afford to give time to say something or discuss. You can come up with so-called modern methods, but as long as you still have large classes, there is no way in which you could teach effectively. In large classes, students may question you on issues that they do not understand, but very few will do that.

Large classes were an issue for Kenneth both in his methodology class, and in his media class. With a small size class, he believed that he could establish and maintain a classroom environment that was more conducive to student learning.

### **Changing Practice and Support**

Kenneth found many reasons not to change his teaching. He asserted that he was not receiving sufficient support from his department, his school of education, and his institution. We will now turn to a discussion of these.

#### Departmental Support

To Kenneth, sharing ideas among teacher educators was key to changing practice. He argues that if faculty in the same department could support one another, there could be changes in how they teach. He suggested that faculty could

Support one another through observing each other's practice. I would like other staff members to support me by going with me to class so that we can look at each other's teaching and offer constructive criticism. I want to be observed by colleagues and I should also go with them to their class to do the same. In that way, we can develop the curriculum together and bring about new changes in teaching in the department.

The support that Kenneth wanted concerns working together with colleagues to come up with ways of teaching that would be different from how teaching is presently done. He showed willingness to change his practice through working with a colleague who would offer him constructive criticism while jointly they developed curriculum. With this kind of support, Kenneth would have no problems in changing his practice. He seemed to be

giving the impression that working together with colleagues in the department would make changing practice easy. As Kenneth explained why he could not make changes in his practice, there appeared to be an internal inconsistency about his beliefs. He no longer mentioned the problems of language, culture, and background in changing practice.

He asserted that the only time he works with colleagues is when “writing a joint paper, but it stops just there.” He maintained that he reads a number of “articles on Curriculum 2005.” To highlight that he did not develop his curriculum with his colleagues, Kenneth points out that “I am doing it on my own, and I get the ideas from reading books and going to conferences.” In other words, Kenneth did not get the opportunities to learn how to change curriculum with his colleagues neither was he trained on curriculum development.

Funding for conferences, equipment, and teaching materials had become a problem to Kenneth. He argued that “funding is not readily available for us to go to conferences, buy equipment and teaching materials. Even where funding is granted, the process of it coming to you takes long that the conference dates might even go by without you having the money.”

#### Support from the school of education

The support and opportunities that the school of education offered to Kenneth to continue to learn and develop into a thoughtful teacher educator were in some case trivial. In one of the seminars organized by the school of education the issue of large classes, which was one of Kenneth’s concerns, was addressed. Kenneth presented at that

seminar. He took issue with how the school of education handled suggestions to help bring about changes. In Kenneth's words,

There is no appreciation for someone who has taken the time to research on a topic and presented it to the school of education with the aim of helping to forge the way forward for all. Academic staff does not seem to be interested in working together to solve problems.

He went on to say:

When you present your paper at a seminar here, nothing is done about the findings and suggestions. You just present a paper at the school of education level, and there will be no follow up of what you will have recommended. You present and they nominate you to a committee. They give you a task. It remains your problem.

What Kenneth was saying is that change may be hampered by problems of ownership, for recommendations are perceived as resting in a single individual. It would seem that with a group activity, there are no obvious rewards for faculty members. As Kenneth had observed, most faculty members did not want to take an active part in what they will not get credit for. The lack of interest in what one does not have ownership in was well addressed by Nolan (1985). He called the tradition of building one's expertise in a narrow area the "isolated professor tradition" for such professors avoided interaction with other professors and remained in their own area.

Apart from reading books and current journals to keep abreast in his area, Kenneth remained in constant touch with educators in other universities by meeting them in conferences and seminars to keep pace with the advancement of knowledge in his own field of study. Since Kenneth did not get the support that he wanted from his school of



education and department, he relied on conferences and seminars, although funds for conferences were at times not available.

Although Kenneth claimed that he received help from colleagues in conferences and seminars outside the university, it was doubtful that he was using such help in his teaching and these conferences did not seem to affect his beliefs. For example, until class sizes were cut down, Kenneth did not believe that it would be worthwhile to teach using the new ways of teaching. It was his belief that large classes do not allow students and teacher educators to interact. Second, he did not believe in being a facilitator where students were unfamiliar with the subject matter and had a language problem.

### Institutional Support

Kenneth viewed institutional support in two ways: opportunities to develop together with colleagues, and the influence of a reward system.

### Opportunities to develop together with colleague

Not only did Kenneth wanted to see colleagues working together within his school of education, but he also wanted to see faculty in the whole university working together. The opportunities for teacher educators to continue to develop, said Kenneth, are very minimal. He would like to see the institution organize seminars that were geared towards issues pertaining to changes in curriculum:

Instead of only addressing institutional transformation, we should also have discussions on transforming teaching. How do we transform teaching from its present status? What is excellent teaching at a university level? Discussions on how to change teaching from its present state would be valuable.

In the above quote, Kenneth highlighted the importance of both institutional transformation and the transformation of teaching. Most importantly, he gave supremacy to the importance of transforming teaching. He believed that “there can be no transformation of the institution without first transforming teaching.”

Kenneth wanted the institution to take the lead on issues of teaching and not only on institutional transformation. He showed interest in changing his practice and willingness to have discussions on what excellent teaching was.

Most importantly, Kenneth would like to have opportunities for working with professors from the institution to do research. Research was important for him in that it helped him stay current in his discipline, which in turn could improve his teaching. What worried him is that experienced, research professors did not present their papers on campus, but elsewhere. Conducting research was, important, said Kenneth, because it enabled one to be promoted. As a result, professors who were experienced in doing research should mentor the less experienced junior members of staff. In addition, Kenneth believed that he could apply new findings to current problems. Kenneth suggested that “professors should co-author papers with junior members of staff so that they could help them in publishing.” He saw publishing as very important in the life of an academic “for if you do not publish you perish.”

As far as the institution is concerned, I would like to see interdisciplinary support in terms of research, for example, how do you do research in Education or Geography? Professors from different schools should come and show us how to present papers. They (professors) do not present papers here but elsewhere. Why cannot we co-author a paper with professors so that we, the junior member, can be mentored?

It was important to Kenneth for professors to co-author papers with junior staff members and, “as a way of supporting us, they should help us to present in conferences and publish.”

Kenneth saw promotions as hinging predominately on research. Since research was highly prized for promotion, he called for the university to support junior staff members of staff by engaging with them in interdisciplinary research. He thought senior faculty should do presentations on campus so as to apprentice junior faculty. Kenneth was interested in apprenticeship so that he could learn how to be a good scholar from experienced professors. He was interested in honing his research skills. These skills were important to Kenneth because without knowing how to write and publish, one could not be promoted.

He proposed that the institution support faculty with resources. “As it is right now, we do not have necessary materials, books to support the required teaching.” The library, according to Kenneth, was badly equipped, although it was to serve as a center of learning. He needed to have a fresh mind, which he could not do unless he kept himself in constant touch with the latest journals, books, and scholarly discussion. Most changes in practice, according to Kenneth, could not be fully implemented without new material, resources, or information. Kenneth viewed the library as being central to the university as an active teaching agency, and it was Kenneth’s wish to send his students to a fully functioning library to do research on recent books and journals. He believed that the university should be of assistance to instructors in discharging their teaching responsibilities and to students when they wanted to do research.

### Influences of Reward System in Changing Practice

Kenneth also asserted that the institution's reward system did not value the work of teacher educators like him. Referring to changing practice, Kenneth was quick to say that "you are not paid and promoted for changing your curriculum. The university incentive structure does not look into that." There were feelings of dissatisfaction about the rules and regulations of promotions, which he said, are not "being followed to the letter."

They say you have to do research and present in conferences for your promotion. I have done what is required and I'm still presenting papers but no promotion. The university is not following the framework for promotions to the letter.

Kenneth pointed out that the university changes its promotion rules "perhaps to make things difficult for us." The guidelines for promotion and appointment of academic staff members in the School of Education were general, unlike promotion guidelines in schools such as law, accounting and auditing; environmental sciences; psychology or industrial psychology. These guidelines were new and until recently, Kenneth would have been able to be promoted to a senior lectureship with only a master's degree. With the new guidelines, he could only move from lecturer to senior lecturer with a doctoral degree or its equivalent, quality teaching experience at a tertiary institution, and quality scholarship. Additional requirements were unpublished work of quality, creative work of demonstration of quality, and quality community service.

Previously, there had been an easy movement at Waterfall University from one academic position to the other without showing any serious work in research, teaching, and service. It was felt that the university should have guidelines as in other universities. These guidelines were made tougher so that faculty without necessary qualifications, publication and service were not promoted. Three university sources I interviewed said that there had been the negative tendency of having faculty promoted to professorial positions without experience and publications. Others would even become professors with only an honors, degree without any scholarly work. To the frustration of Kenneth, the university decided in 1995 to tighten the rules for promotion. The university felt that there were promotions without proper qualifications and what is generally recognized to be standard practice in other universities of promotions. Rules for promotion changed and, as Kenneth put it, “you will never know how long you should have taught to be promoted, how many publications you need before you’re promoted, which conferences you need to present to so that your papers can be valued.” New promotions from a lecturer to senior lecturer needed a masters degree or equivalent, teaching experience, and community service. Community service was highly important in one’s promotion because the committee wanted lecturers to share their expertise beyond the university

To Kenneth, the requirements were not clear when they were interpreted differently in the case of different lecturers who were due for promotion. “If they were interpreted in the same way for every person, one would say there is fairness.” It was clear from the interview that in Kenneth’s mind research comes first in the promotion. This was evident by his constant talk about research and his relatively little discussion about teaching. In interviews, Kenneth talked about research more than teaching. He

suggested that professors not only present their papers at the university, but also co-author papers in order to teach junior lecturers how to do research and publish. He was burdened by large classes but he uses them to his advantage by conducting research and publishing papers. He researched on practice teaching, large classes and their impact on teaching and microteaching. Promotions, therefore, hinged predominately on research. Devoting time to changing practice did not contribute much toward that. “But if you do, you had better research and publish out of it.”

If service counted in a meaningful sense to a person who was due for promotion, Kenneth would have been promoted because as he said, he served on so many committees that he did his preparations during his vacations. If he failed to prepare during that time, he “cannot do it during the year.”

### **Time and Changing Practice**

The resource that Kenneth felt most keenly lacking was time, both shared time for collaborative work and individual time to take on new roles on top of continued responsibilities. Kenneth mentioned the problem of time conflict related to the difficulty of preparing and the problems managing both his ongoing responsibilities. His workload was heavy each term. He had 6 periods of economics methods, 8 periods practical, 2 periods for theory, and also a B.ED (a graduate class- Bachelor of Education) class. Apart from this workload, he was also on different committees where he spent most of his time taking care of committee mandates:

I am actually involved in different committees. My workload is very heavy. I do most of my work during the vacations, that is, arranging what to teach what materials to use, projects etc. I think about what I want to improve at that time or else it will never be possible because of the heavy workload I have. I have very little time for research.

What was surprising was that while Kenneth complained about lack of time and large classes, he indicated that it worked to his advantage. With large classes to grade, it was unthinkable to “write a number of papers, read and publish them.” It was difficult to reconcile what he said about time constraints, large classes, and their influence on his teaching and use of the new ideas from other lecturers. On the other hand, Kenneth indicated that teaching in the prescribed approach was not new. He thought that he had always been doing what was expected of him by the new reform.

### Conclusion

Kenneth is a very difficult teacher educator to write about. What makes it difficult is that his responses to questions are fraught with conflicting views. He did say from the beginning that he had problems with the new ways of teaching, but as time went on in our interview, Kenneth acted as a person who did not have problems at all. He argued that memorization was important because students learned important facts which could not be learned otherwise. But he also said that one’s experiences are important for understanding what one was learning.

Amazingly, when he became a teacher, he reverted to believing in memorization only. The experiences he had before he went to teacher education were the ones he brought into teaching. Again, what he did not like to do in his own teacher education

program— teaching and learning without understanding and through memorization— was what he did in his teaching as a teacher educator. As a teacher educator, he was preparing prospective teachers in much the same manner as he, himself, was prepared. He fell back on tacitly approved teaching practices that seemed to have worked for his former teachers and which might be in use by his colleagues. He further mentions that English, as a medium of instruction was a barrier to learning for many students, especially in discussion where students were expected to express themselves well. But he suggested that one could be a facilitator if the subject matter is familiar to student, and that one could have a discussion with small groups. It was not clear what he would do with language, background and culture problems, because if these were a problem in a big group, they would be a problem in a small group too.

Because of the previous type of education— Bantu education where only the teacher knew everything and students were empty vessels to be filled. Kenneth held that the way the reformers wanted students to take part in class might also not be feasible, and change might take some time to occur. As such Kenneth gave advice to reformers that they should have found out first if the new ways of teaching were going to work in areas where students' background, language and culture were different from others. But Kenneth also said that the cooperation with his colleagues could bring about change in practice. Emphasis was made on the significance of working together to develop the curriculum. If his department could give significance to developing the curriculum together, going to class with a colleague to be observed or to observe and then give constructive criticisms, there could be changes in teaching for all teacher educators.



Kenneth came alive when he discussed what his department, school of education, and institution should be doing in order to make the new reform a reality. In particular, he highlighted the importance of interdisciplinary research so that faculty could share knowledge. Research was important for him because he believed that promotions hinged on research. It was his firm belief that he should teach for survival— teach the way teaching is still done today, but also to help students survive the job interview by teaching them some of the highlights of the new reform.

His beliefs about teaching and learning did not change even when he went to conferences where he claimed he exchanged ideas and found out what was new from colleagues from other universities. Conferences might not be focused and helpful with curriculum change, that is, they might not have specific bearing on what Kenneth was doing in class. Again, Kenneth did not seem to change his beliefs because he seemed not to view reform as sensible. He thought it was the duty of the reformers to find out first if the reform was going to work for every student, from both rural and urban areas.

His department, school of education and the institution each seemed to reinforce Kenneth's beliefs in its own way. Kenneth, although he was contradicting his earlier statement of the problems of language, background and culture, was willing to change his curriculum, but lecturers and professors did not come together to talk about the reform. Instead, he read on his own and decided which parts of reform to include in his curriculum. Although this might be the problem of the reformers (no information relayed on how to go about doing the reform), his department should be meeting to discuss what they are expected to do. Kenneth seemed to be working in a situation where he viewed the problems as bigger than himself. He seemed to have evaluated things and did what

was within his means, by taking bits and pieces, and putting them in his syllabus to allow prospective students get the feel of what they were expected to do in the schools.

His beliefs also seemed to be reinforced by the discouraging attitude of the school of education. According to Kenneth, proposals were not acted upon and faculty would not work together to solve problems. Rather, proposals would be thrown back at him if he was the one who proposed some changes. The university might also be reinforcing Kenneth's beliefs. The current organization of his institution might be encouraging Kenneth not to change, for improvement in teaching did not seem to be connected to any incentive. The university looked only at scientific research for promotion and not, according to Kenneth, on excellent teaching. According to Kenneth, the university should have seminars on what excellent teaching means, how to teach differently from the present teaching, and to try to encourage those who were good in teaching through promotions.

Time vested in curriculum change and excellent teaching would not be rewarded by the university. As a result, Kenneth seemed to be unwilling to spend a large amount of time in changing his practice. He asserted that the institution did not provide most resources, making it difficult to do anything different in his teaching.

Although the principal encouraged change, the ethos that drove the university might not yet have been accepted by all. A lot of faculty, including Kenneth, might have their own ideas of what needed to be changed, so that changing practice would end up being a complex and enormously difficult task.

## **Chapter 7**

### **THE CHALLENGES OF CHANGING PRACTICES: BELIEFS, EXPERIENCES, AND STRUCTURES AS COMPLICATING FACTORS**

The central purpose of this study was to describe and explain how the practice of the teacher educator was influenced by the interaction of beliefs, experiences, and structure. The questions that shaped my study were: How do beliefs and experiences of a teacher educator affect his or her practice? How is the practice of the teacher educator influenced by structures? In this chapter, the findings of the study that are presented at length in the chapters are summarized. I then explore the different manifestations of transforming preservice-education and the complexities of changing practice. I also discuss implications of these findings for teacher education and its reform.

#### **A Review of Findings**

##### **Beliefs and Experiences of Teacher Educators and their Practices**

When Susan began to teach, she used the methods she was taught and saw her teachers use in all levels of education. She did not know any other method of teaching except teacher talk and students' response that dominated her teaching. She believed in memorization and, as a result, covering of the syllabus was important for her in preparing her students for the examination. Susan did not have confidence in teaching certain sections of Geography due to her lack of knowledge. Her experiences at graduate school

were instrumental in her change of beliefs and practice. She experienced a kind of learning with understanding that she had not experienced before in her education and it changed her views about students, learning, and teaching. The new visions of teaching so influenced her that when she went back to teach, she changed her goal of teaching to be in alignment with the new teaching she acquired at graduate school. Susan's goal of teaching was to produce independent thinkers who knew that knowledge was not fixed. To achieve this, Susan used a student-centered approach where she organized a class as a seminar, encouraged problem solving, questioning, and reasoning, justification, and students working together in groups. Through a student-centered approach, Susan helped her students make connections among ideas and conceptual understandings. She took the position of a facilitator in this approach of teaching and learning and not an authoritarian teacher educator. Her new beliefs were in alignment with the new policy of teaching the reformers were advocating.

To Susan, the new approach was the constructivist approach to which she got exposed at Knox University. She was drawn to it because she felt she needed a change from her traditional approach to teaching. In this approach, the student is at the center while she is a guide and facilitator. She maintained that the approach was time consuming because she had to look for relevant material resources to help her but it was rewarding to see students learning with understanding. Susan was aware that the new approach of teaching meant a lot of work, but because she was willing to teach adventurously, and because of her belief that students learn with understanding, she went ahead and used the method. She taught using projects, working together in groups and taking field trips. These field trips were important to the changes she made in teaching.

Simon offered a very different set of beliefs and experiences. He believed in teacher talk and whole group instruction at the beginning of his teaching. He used a lot of telling which encouraged students to be passive listeners in class. Although a chemistry teacher influenced him to value showing and demonstrations, he used traditional methods at the beginning for he saw almost all the teachers teaching that way. But as time went on, he changed his teaching approach and followed the strategies he saw his chemistry teacher use, most to the delight of his students, for they started to understand what he was teaching them.

Simon continued to teach like his chemistry teacher, who presented chemistry in a lively manner by way of different experiments, when he arrived in South Africa. But he quickly changed his teaching to teaching mainly by giving students work to commit to memory and using a cane like other teacher educators, when he realized that his students were not learning. Two years later, realizing that students were not “active and involved in their learning,” he changed back to teaching mainly by doing experiments. Simon’s goals of teaching were to clarify content which students did not understand, give students knowledge and bring about transformation of science education through teaching by doing simple projects, and showing or demonstrating the processes. His belief was first to make conceptual connections between ideas through experiments and to allow students to make analysis, observations and presentations of their findings. Second, it was also his belief that students should be afforded the opportunity to come up with their own viewpoint on whatever they were learning. Third, he believed that students should pursue deeper understanding of their world in the process of asking questions and seeking answers. Simon believed in being a facilitator of learning according to the new visions of

learning mandated by the Ministry of Education, and not a teacher educator who imposed his ideas to his students.

At first, Simon claimed that he had been using the mandated curriculum- the Outcomes-Based Education (OBE) approach- from the time it was introduced. But when I conducted my last interview with him, he explained that he was unsure of what OBE really meant and how it was operationalized in class. For example, Simon did not seem to understand how a facilitator worked. Instead of being the director of learning, he taught. He only became a facilitator for 30 minutes when he was trying to engage students in an experiment, which was intended to lessen the boredom of a two -hour class.

Unlike Susan, Simon seemed to have little information about the reform that he was relating to his teaching. Therefore, he could not make sense of how he was supposed to teach in the new approach. Susan's confidence contrasted with the puzzle Simon presented. While Simon had asserted that he was aligning his teaching with the reform, it was striking to discover that Simon was uncertain about the new approaches to teaching.

His class readings were indicative of a teacher educator who understood the new curriculum and teaching according to the new visions of learning. In his description of his practice, Simon believed that he was encouraging students to develop critical skills by giving them projects to complete and present them in class. The class would critically think about what was presented and give constructive criticism. He aimed at making students understand what he was teaching by using lots of experiments and projects. Simon did not want to make physical science abstract, especially at the time when the new reform was advocating understanding through analyzing, reasoning, critical thought,

interpreting and weighing of evidence. Surprisingly, Simon could talk using the reform language, but when I asked him what the reform was all about he said he was not sure.

Simon contradicted himself greatly. As we have seen in chapter 5, his readings for the class, how he taught, and answered interview questions took different directions altogether. First, when I interviewed him, Simon talked about giving students knowledge that was not clear to them. By imparting knowledge, Simon implied that he was going to give them knowledge and not construct it with them. He did not seem to recognize that students had information and experiences to share in class. It would seem that while he indicated that he understood the reform, and was aligning his practice with it, Simon was using the traditional view of teaching where the teacher educator knew everything and students were the empty vessels to be filled. The implication was that Simon thought students had knowledge deficiencies, and those could be addressed through imparting knowledge. Second, although my observation was not sufficiently reliable because I made only one observation, I found Simon to have the tendency to do just as he suggested, namely, imparting knowledge. He also believed in making connections to the concepts of prior knowledge. Yet, it is difficult to impart knowledge and at the same time teach for understanding. When he asked questions, Simon neither probed further nor reacted with comments. At best, he would add on to the answers given or gave his own answers. Simon encouraged thinking and innovative ideas and did not “restrict their activities and prevent them from becoming independent individuals,” as suggested in one of his class readings. This was not the case when I observed him except when he was doing experiments. Therefore, there appears to be a contradiction in what Simon believed in and what he did in his class.

If Simon was puzzling for his verbal commitment to a reform he did not understand, Kenneth stood out for how his beliefs and experiences convinced him to reject the reform. Kenneth used the traditional approach to teaching from the time he started teaching. He believed in teaching for survival, something that students would apply immediately in their classrooms when they started teaching. Therefore, his goal of teaching was to prepare students to meet the challenges of the classroom that were experienced at that time. He believed those survival skills in teaching in areas such as doing preparations, classroom discipline, and how to teach for success in taking examinations should be taught to meet the challenges of the schools. His immediate goal was therefore to teach in familiar ways that were still popular in schools. Kenneth did not think the Ministry of Education was fair in its mandates for it was not sensitive to the needs of the students. He believed in being sensitive to the students' needs by helping them go through the examination by emphasizing what they should know. Based on his beliefs and prior experiences, Kenneth developed ideas about what students needed to know in order to teach well. He strongly believed that the background, culture and the language of students were influential in their learning, and felt strongly that the reform did not take them into consideration.

At first, Kenneth's experiences with memorization were that it was not a good way of learning. He struggled to get through with his studies, especially at university level because his professors wanted him to memorize. He believed in understanding the subject matter, the belief he was penalized for. Yet by the time he completed his teacher education, he had changed his beliefs about memorization. He posited that memorization



still had a place in learning. He asserted that there was information that students needed to commit to memory if teacher educators needed them to learn something.

The mandated curriculum did not influence Kenneth in his teaching. He held that looking at teaching methods as a whole influenced his teaching and that any method was suitable depending on who was the learner. Kenneth argued that he was not going to use the same methods in teaching students from disadvantaged and advantaged areas because of their different backgrounds. He maintained that reformers needed to have taken into consideration these different contexts when they came up with their reform.

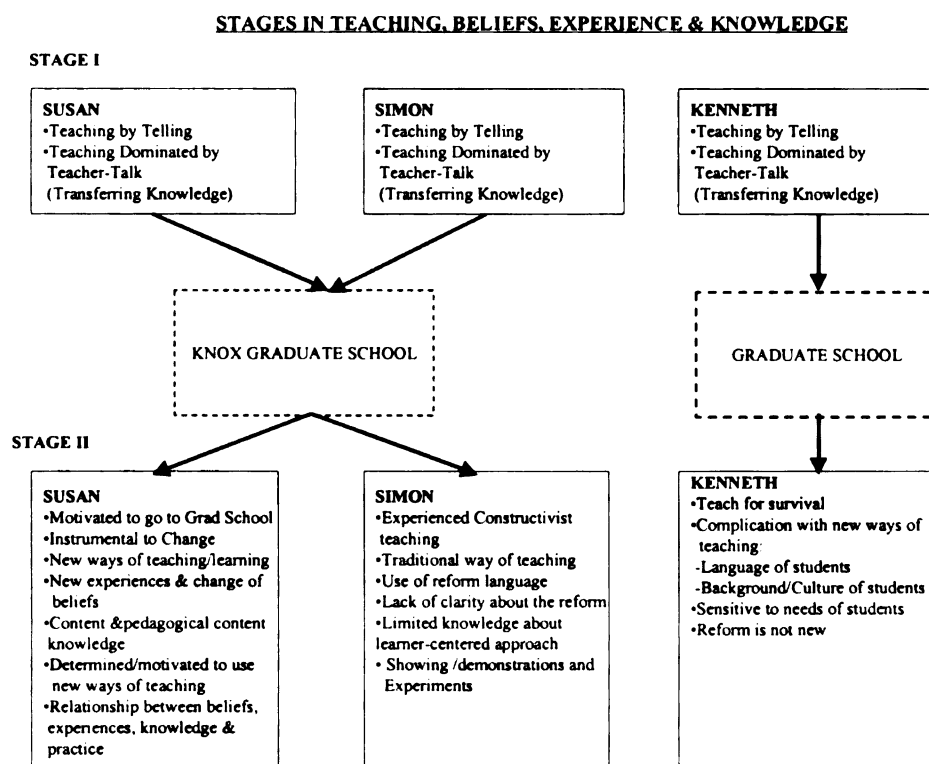
Kenneth did not perceive any difference between what he was doing in class and the mandates from the Ministry. He believed that the same methods of teaching which were being used were coming back in a disguised manner. He explained that when teaching, one had to pay attention to how one was going to make students understand what he was teaching. To Kenneth, the only way of thinking about how students would understand the lesson was to plan the teaching methods, which was what he had been doing all the time. In other words, Kenneth did not think that anything had changed. He defined creativity as selecting methods of teaching. He was unhappy about the methods that did not emanate from the experiences of educators. He felt that the experiences of those who had been involved in educating students should have been sought in order to make the reform translatable into practice.

Consensus about being a facilitator characterized most of his responses. First, he maintained that the role of a teacher educator was to teach rather than to be a facilitator because of the important things that had to be taught. As such, Kenneth viewed knowledge as fixed and given. Second, when arguing about disadvantaged students, for

example, those found in rural areas, Kenneth spoke of how most of the students could not express themselves well in English, and how important it was for him to lecture in that situation because he wanted them to get all the information. But, he held that a teacher educator could be a facilitator when students were familiar with the subject matter and he or she could allow students to discuss in small groups. What was not addressed in this response was the question of language that Kenneth argued earlier on would prevent him from teaching in the new ways.

The three teacher educators' progression of beliefs, experiences and their practice are summed up in figure 1 below.

Figure 1



## **Structures and their Influence on Teacher Educators' Practices**

Institutional structures influenced the three teacher educators in their change of practice. All three were in agreement that there was a lack of working together with colleagues in their departments. Susan complained about the lack of discussions in their meetings pertaining to problems of teaching and working together in curriculum development. She stressed that curriculum changes should be group activities in order to set a good atmosphere of change in the department. Simon was concerned that as members of the same department, faculty did not have common grounds on which to focus their discussions about teaching. As a result, he reported that faculty in his department did not have opportunities of working and developing collectively. To Kenneth, sharing of ideas, which was absent in his department, was an important basis for changing practice,. He further suggested that it would be helpful to have a colleague observe his class and vice versa so that they could benefit from each other's feedback and constructive criticisms on how to improve teaching.

Simon and Kenneth agreed with each other that their institution did not have time available for faculty to come together for academic discourse meetings where they discussed issues pertaining to teaching and learning. Kenneth further pointed out that emphasis should not only be put on institutional transformation but also on how to transform teaching. Susan went further and said that the institution was not supportive of teaching, for there were no recent journals and books in the library. Most teaching materials, according to Susan, were scarce, and as a result, she improvised.

Both Susan and Simon saw the new dean of the school of education as very supportive. Simon called him progressive and supportive as compared to the one that was there before. Susan mentioned that the new dean was accessible and knowledgeable. He encouraged faculty to attend conferences in order to acquire new ideas about teaching, which would in turn allow them to make changes in their own teaching. On the other hand, Kenneth maintained that the faculty in the school of education seemed not to be interested in working together to solve problems of education. He gave an example of a faculty researching on an issue which he felt was important in teaching. He reported that the issue was not taken seriously by the school of education. Since the school of education seemed not to be interested in solving the problem, it was pushed back to the faculty who proposed it.

Time seemed to be a significant resource in changing practice to all the three teacher educators. Susan and Simon complained about time loss during students' class boycotts. Teaching for both teacher educators was different after the boycotts in the sense that emphasis was placed on covering the syllabus and no longer on employing different methods to help students understand the subject matter. This was necessitated by a limited time they had before students took their examinations. The limited time for preparing prospective teachers was a serious concern to Susan and Simon. Considering two and half months each semester devoted to practice teaching, Susan and Simon felt that more time was needed for preparing prospective teachers if meaningful changes were to be made on how to teach. Kenneth lacked time for collaborative work and time to take new roles. His workload was heavy and he also served on different committees. As a

result, Kenneth was not able to think about ways of improving his practice during the school year.

Kenneth and Simon were disappointed that the university incentive structure was not tied to curriculum development, neither did it value curriculum change. They complained that the university was not applying the rules and requirements of promotions equally with different faculty. When the requirements and rules of promotions changed, they immediately found out that they were required to reach high standards in almost everything before they could be promoted. In contrast, Susan knew that one had to be promoted after meeting certain rules and regulations of promotions and she concentrated on working on those requirements.

All three teacher educators valued professional conferences. They thought of these conferences as a means of professional growth and development. For Susan, conferences were very important for networking. Collegial network supported Susan in her change of practice by exchanging ideas with colleagues with the same vision. Although Susan pointed out to the lack of funding, funding for going to conferences were at times gained through external funding. Simon and Kenneth did not attend many conferences because they were not funded and as such they were not prepared to pay out of their pockets or get an outside funding.

### **How do Beliefs, Experiences, and Structures create a Vision of Change?**

My analysis of the three teacher educators' beliefs, experiences, and structures suggested that each one had a different way of conceiving change. I call this different ways of conceiving change visions of change. By visions of change I am referring to

modes of seeing or conceiving change. In order to understand how the three teacher educators were able or unable to change, it is essential that we look at each teacher educator's developed vision of change. My analysis of the results showed that the three teacher educators' visions of change were connected to what they believed in, their experiences and the institutional structures.

### **Visions of Change**

Susan, Simon, and Kenneth presented three different visions of teaching that stood out very clearly: looking for excellence in teaching, false clarity of change in teaching and empathy in teaching.

### **Looking for Excellence in Teaching**

When Susan went to Knox University for graduate study, she came across new ways of teaching that appealed to her and changed her teaching forever. She came out understanding how to teach Geography adventurously. She brought back to her teaching a belief about what Geography was, which was built out of her experiences with pedagogy and Geography. Her subject matter knowledge was also transformed. Because of her motivation to acquire something new, Susan acquired new beliefs, experiences and structure of learning. Specifically, Susan differed with Simon and Kenneth on content and pedagogical content knowledge (Shulman, 1987), which were significant in changing her practice. She learned Geography by seeing, and that was how she taught it after going to Knox. Susan's case showed the relationship between beliefs, experiences knowledge, and practice. When she came back, she put into practice her acquired beliefs and

experiences, which impacted her practice in a positive way. Even though Susan shared the same institutional context as Kenneth and Simon, she did not experience it in the same way. Some constraints she felt, just as they did, but she found windows of possibility and made a commitment to change in spite of constraints. Although institutional structures such as support by her colleagues, library materials, and monetary resources would not have allowed her to change her practice, she went ahead and got the support she needed to make her experience at Knox University a reality to herself and students. Susan improvised most of her teaching materials and she also got support from colleagues outside her university.

One characteristic of excellence in teaching is the enthusiasm teacher educators show in the subject they teach (Woodward, 1986; Sherman et al, 1987). Teacher educators who are enthusiastic about their work want to inspire their students as well, to be enthusiastic about the subject (Woodward, 1986). Enthusiasm described Susan in how she thought about Geography, teaching and learning it. She was innovative and always searching for better ways to teach her subject matter. For example, since there were insufficient resources to help her teach, she improvised and came up with her own resources in the form of videos.

Another characteristic of excellence in teaching is the ability to stimulate interest and think about the subject matter (Sherman et al, 1987). When Susan took her students for fieldwork, she divided them into small groups in order for them to learn by supporting one another, sharing knowledge and experiences. This revealed Susan as a teacher educator, who had love for learning and loved to teach others how to do so as well. She was always concerned about finding an interesting way of presenting the subject matter.

For example, the project method that was presented by a group when I went to observe the class, was one of the ways in which Susan stimulated her students' interest and thinking about the subject and it empowered them to take charge of their own learning. Susan empowered her students by exposing them to different ways of teaching Geography.

Her clarity and skills in explaining Geography concepts permeated through her students' clear explanations of concepts during the project method presentation. This was an indication that Susan modeled the best ways of teaching. Students spent time researching the project method and in that way, they were able to take control of the subject matter they were to teach. Susan' learning experiences at graduate school helped her transform her teaching and her students' learning of Geography to an extent that when they learned Geography they always referred to their everyday life environments. Kenneth and Simon also had experiences but they had not changed their understanding of their subject matter. Their contrast with Susan suggested that to teach for understanding (Cohen, 1988) and excellence, teacher educators required flexible understandings of the subject matter.

To teach for excellence, Susan also prepared and organized what she was going to teach about thoroughly. The purpose was for Susan to be able to sequence her subject matter well and also to help her students learn with understanding. Sherman et al, (1987) Shared this view and went on to say that preparation and organization of one's lesson were interwoven. They maintained that a teacher educator might have all the materials and instructional aids necessary to carry out a lesson, but if the organization of the subject matter was lacking, the effectiveness of the lesson would be diminished. Susan's students



were prepared and organized in their presentation, which demonstrated Susan's interest in stimulating others to learn

Kenneth and Simon had experiences but they did not change. Despite experiences, their beliefs about teaching and students' learning did not change. There seemed to be an absence of vision of excellence in teaching to Simon and Kenneth. There was a lack of enthusiasm about the subject matter for Simon and Kenneth's teaching. The attitude toward the subject matter and teaching in general shown by these two teacher educators did not encourage enthusiasm in their students. For example, most of Simon's readings for the class indicated that lessons should be student-centered and allow students to communicate, encourage innovative ideas, think, work in groups and not restrict their activities and prevent them from becoming independent thinkers. Surprisingly, the lesson I observed was mostly teacher-centered such that the students' responses were not one of excitement about the learning process except in the last thirty minutes when Simon conducted an experiment. Simon had prepared his lesson, but it looked like he did not organize his subject matter well. His lesson was a bit disjointed. First, it was a lesson on questioning in teaching. It was followed by questions on their lesson plan assignment. If the questions on the lesson plan assignment were intended to show examples of the first part of the lesson, it was not apparent. It looked like a new lesson altogether. The third lesson was an experiment to predict solutions to the problems given not an exercise on how to use questioning in teaching. Unlike Susan's students, Kenneth's students did not show any enthusiasm and creativity in the presentation of their work. From the few assignment papers I was given to look at, organization was a big problem and would seem to have affected the students' presentation. Kenneth's belief was to teach for

survival, and it seemed enthusiasm, clarity, love to learn and creativity did not matter as long as students wrote the assignment, presented and turned their work in. Most of the assignments were copied from books verbatim and presented. Students' responses in this presentation were one of disengagement. This says something about the lack of the ability, in the part of the students' teacher educator, to convey an infectious enthusiasm (Woodward, 1986) to them.

### **False Clarity of Change in Teaching**

Simon was a teacher educator who exemplified false clarity of change (Fullan, 1991). When I looked at Simon's practice, my conviction that one could maintain a technical perspective towards the preparation of prospective teachers even where one identified critical thinking as a goal was reinforced.

Simon could be likened to Mrs. Oublier (Mrs. O.) described by Cohen (1990). Mrs. O. thought she was using innovative instructional materials and activities, but she was teaching mathematics as part of a traditional approach to instruction. Like Mrs. O's class, Simon combined constructivist teaching with traditional teaching because he was not clear about the reform. Interestingly, in my interviews with Simon and looking at his class readings, he used reform language such as teaching for understanding, transforming science education, creativity and critical thinkers. He thought he had transformed science teaching. His class was a mixture of the old and the new teaching approaches (Cohen, 1990). The fact that Simon used a mixture of the old and the new teaching approaches might have been caused by the reform which was unclear to him to a point that he could not fully engage in it (Darling-Hammond, 1990). Simon could only teach in the way he

understood. No wonder he could fill the gaps with what he had already in place where he did not understand or have any information of the reform. A conclusion could be made that what the reform mandated was not concrete enough to identify practices that teacher educators needed to adopt. It identified outcomes, and outcomes did not necessarily specify practices.

Simon had been modeling how to do experiments, but he did not fade out to let students carry out those experiments on their own. Without giving students time to interact, puzzle, and analyze with one another, students' understanding of concepts and making connections among them would not be easy. Yet after Simon had asked questions to the students, he hurriedly gave answers.

In Simon's class, there was no time for the students to weigh evidence and to think critically about the response. The lack of time to think critically and to weigh evidence seemed to indicate that even if Simon could have indicated critical thinking or creativity as his goal for teaching, what he showed us in class was focused on technical concerns of what works. In other words, Simon was not very clear on how constructivist approach of teaching was to be employed. When I observed him, he seemed to have a different method for teaching science and a different method for teaching in general. The lesson I observed was on the importance of questioning in teaching. He spent 35 minutes without asking questions. When he started asking questions, he did not probe their answers. When he taught science he did an experiment where he used quite a different method. He posed questions, waited for students to respond, and probed. Simon used modeling in science for students to see how science was to be taught, although he was not giving them a chance to do the experiments. He would conduct the experiments, and ask

students to question and enter into a discussion. To him, science was curriculum. If you talked about science, you could model science teaching. But with the subject matter called teaching you could tell students what good questions were. It seemed that to him the subject “teaching” did not require the same methodology as the subject “science.” Simon wanted to transform science education through teaching differently, and to making conceptual connections between ideas through experiments.

Simon was very conscious about the changes he was making. He taught to the audience. For example, when Simon finally resorted to use the cane, it was after realizing that his students were not passing the tests. Both students and parents did not respect any teacher educator whose students did not pass. His expectations of what should be made him conscious about what should be done so that he would not lose respect of the community. Here too, Simon offered us images of challenges of changing curriculum. The parents might not understand the new visions of teaching, more so if the old methods of teaching still made their students pass and get jobs. Colleagues could offer criticisms especially if their students were, according to them, doing well in memorization.

Simon’s conscientiousness illustrated how false clarity represented not a lack of effort in the part of the practitioner. Rather, policies and professional development seemed crucial and allowed a teacher like Simon to transform not just his rhetoric, but his understandings and skills.

## **Empathy in Teaching**

Research has indicated that educators' receptivity towards reforms depend on whether they buy into it (Fullan, 1991, 1993) Researchers have explained the reactions of educators when change is imposed upon them through a top-down mandates (Bailey, 2000; Fullan, 1991). For example, the most common reaction to top-down mandates is to reject the change and carry on as before (Datnow, 2000).

Kenneth had reservations about the reform because it was developed externally. He was specifically concerned about the suitability of the externally developed solutions to local and very particular environments such as his. The rhetoric of the changes seemed not to match with the realities of his experiences about what was expected from his students. Therefore, Kenneth selected to identify with what his students needed and were critical in their teaching. As such, he taught for survival. Although Kenneth did not believe in the reform or see anything new about it, he was forced to let the students know about it because it was asked in job interviews for prospective teachers. He did not want to jeopardize his students' chances of getting jobs by not teaching them. Teaching them about the reform showed Kenneth's empathy towards his students and it seemed to be part of teaching for survival.

Kenneth exemplified a teacher educator who had empathy when he taught his students. His experiences at all levels of education and his beliefs made him develop an empathetic and sensitive relationship with his students. In turn, his empathy in teaching influenced him not to change. To Kenneth, the reform prompted opposite responses because of its familiarity or its lack of newness and the way it seemed to waste time for what students should be learning.

Schmidt and Kennedy (1990) document that experiences and beliefs that are formed through personal experiences are likely to hinder the efforts of reformers. Kenneth is a strong case of this. Because he wanted his students to pass the examination, he taught the way the examination would be written. This was an indication of how Kenneth's practice was strongly influenced by the interplay of his beliefs and experiences.

Like Simon, Kenneth's resistance to reform points out the need for policy that takes into account the many aspects of teacher education- including teacher educators' beliefs and dispositions which may inadvertently impede reform.

### **What do these cases teach us about beliefs and experiences and their impact on teacher education?**

Research (Roychoudhury and Kahle, 1999; and Clark et al., 1987) has suggested the powerful role of beliefs and experiences on teachers. Teachers' beliefs and experiences have profound effects and are powerful drivers of classroom practices. In this small sample of teacher educators, we see again the crucial role that beliefs and experiences play. In each case, prior experiences led these teacher educators to change or not to change. Their beliefs, changed or remaining unchanged by experiences, very much affected how they saw the new education reform.

What do we learn from these cases about beliefs and experiences and their interplay with practice? First, this study suggests that one can have good experiences, but may not change beliefs. Both Susan and Simon went to Knox University for their

graduate studies. They both agreed that the experiences they had at Knox were good and different from other learning experiences. But Simon's beliefs and experiences seemed complicated. While he believed that his experiences at Knox were different, he did not set out to try some of the methods that were used. For his teaching, he used his high school and undergraduate university experiences as models or inspirations. At Knox, Susan and Simon found themselves in a context that was rich and plentiful (Langer, 2000) in terms of experimenting with different ways of teaching and learning. But a rich context did not assure teaching excellence for Simon when he went back to his position. When Susan went back, she was determined to use the knowledge she gained at Knox University. She had a motivation for undertaking the studies. Some researchers, among them Tillema (1998), suggested that new beliefs could not be accepted without the preparedness to change beliefs or theories. Because she was motivated and prepared to change when she went to Knox University, Susan quickly changed her practice. Simon seemed unprepared to change his beliefs whereas Susan was prepared and determined to do so. She was not satisfied with her own ways of teaching, and she set out to learn more about teaching and learning. When she got exposed to the new ways of teaching and learning, she embraced them. Susan's experiences caused her to learn new techniques and change her beliefs and conceptions of practice (Elmore and Sykes, 1992; Richardson, 1990).

Powerful as beliefs and experiences are, we see how they work differently with these two teacher educators. Therefore, being exposed to the same experiences in graduate school does not necessarily predict the degree and direction of change to both of these teacher educators. Simon got new experiences, but he was not motivated to use





them. Therefore, beliefs and experiences are not entirely predictive in these cases. They are complicated.

Second, the data reveal that the practice of the teacher educator is influenced by the interplay of his or her beliefs and experiences about the content and pedagogical content knowledge. Susan did not have confidence in teaching certain sections of geography before she went to Knox University. By going to graduate school, she expanded her knowledge base on geography and how to teach it. For example, she had difficulties in teaching climatology, but after being exposed to many ways of teaching, she became confident to teach it. She had also gained more content knowledge than when she first undertook her graduate studies. This was consistent with Shulman's (1986) assertion that content knowledge and pedagogical content knowledge were important to good teaching and student understanding. When teacher educators had pedagogical knowledge, they were in a position to transform knowledge in order that students could understand it (Wilson, and Shulman, 1987). She got exposed to the constructivist approach of teaching, was able to identify the discrepancies between her viewpoint of teaching and learning and the underlying new visions of teaching (Feiman-Nemser et al, 1996). Susan's experiences led to a dramatic change of teaching. Her new beliefs and experiences about teaching and learning impacted her practice and she developed a repertoire of instructional approaches such as project work, inquiry teaching, fieldtrips, group problem solving and interactive teaching and learning. On the other hand, Simon believed in the type of education that Susan received- an education that was not prescriptive. Yet in contrast to prior literature (Liston and Zeichner, 1987), this study indicated that Simon fell back on his old beliefs. Liston and Zeichner asserted that

teachers who were educated in programs that were critical and emancipatory might be prepared to engage their students in productive and meaningful education. Yet Simon regressed to what he already knew as a student and teacher. The voice of personal experience held the advantage (Holt-Reynolds, 1991).

Observation of teaching and descriptions of teaching obtained through discussions and interviews revealed the interplay of beliefs and experiences about content and pedagogical content knowledge Susan acquired at Knox University. She planned her lessons well in advance and the methods of teaching and content gave expression to her and the students' imaginations and inventiveness. For example, in the presentation of the project method students made decisions about which methods they were going to employ to demonstrate it. All these involved imaginations and inventiveness on the part of the students, who were taught by a teacher educator who experienced and promised to employ the new ways of teaching that she learned at Knox University.

Third, this study suggests that the practice of teacher educators is influenced by the interplay of experiences and beliefs on what works in a particular context. Fullan and Parks (1981) suggest that what would work in classrooms could be very rigid and originate in the past. Moreover, beliefs and experiences that are formed through personal experiences are likely to hinder the effects of reformers (Schmidt et al, 1990). Kenneth fits well in this description. He held on to the past for the sake of his students. First, he taught them for their survival, for he believed that without teaching them the basics of teaching, they would not get jobs. Kenneth wanted the reform to fit local contexts (Datnow, Hubbard and Mehan, 1998) so that it could be meaningful. What works in the classroom for Kenneth was determined by his past experiences as a student and a teacher

at high school. It seemed very hard for Kenneth to change without looking at the realities that surrounded him and his students. Second, his beliefs and experiences stood out clearly when he taught his students. Kenneth did not believe in what the reformers proposed. As such he was not completely sold on it, even though he actively participated in committees about changing the curriculum. But he did help his students to understand what the reform was all about without using it in class. Giving students information about the reform was all part of the game of survival. He was equipping his students with information for job interviews. Some teachers in a study conducted by Datnow and Castellano (2000) about Success For All (SFA) program, accommodated the program in a similar way to Kenneth. They voted for the program even though they were not fully buying into it. They accommodated and implemented what they thought worked in their particular context. Although Kenneth knew almost everything about the reform, his experiences and beliefs made him not embrace it, for he felt it was not addressing the real issues that students were facing and were still going to face when they started with their teaching jobs.

Fourth, the data reveal that teacher educators often implement reform in terms of their own “pedagogical pasts” (Tack and Cuban, 1995). Simon’s experiences at Knox did not lead to correspondent practices. He still instructed. He liked to give answers instead of inspiring students to discover for themselves. Simon made adaptations in his teaching where he used what Cohen (1990) calls “something new and something old” by mixing traditional teaching and constructive ways of teaching. This is not at all surprising, given the research showing that reforms are seldom implemented in the classroom exactly as reformers intend them to be (Elmore and Sykes, 1992). Simon and Kenneth adhered very

loosely to the reform. Kenneth decided to teach about the reform in order to prepare students for interviews. He also used the project method where students had to present their work. Simon engaged students in his lesson minimally towards the end of the lesson, but he spoke the language of reform, that is, during the interview he was always talking about reforming science education. When I observed his class, there was little indication that he was reforming it. Therefore, teacher educators' beliefs and experiences on the pedagogy that worked for them could adversely impede changes in practice, as was the case with Kenneth and Simon.

Fifth, another finding is that teacher educator's experience and beliefs in professional development have a great impact on his or her practice. Support is an important precondition for growth (Levine, 1988) and lack of it, seem to make those who are in need of it get stuck or regress to their former ways of doing things. Those who receive support tend to flourish (Levine, 1988). Susan's participation in conferences, seminars and other teacher educators' networks were intentional because she understood and knew the benefits of these networks, conferences and seminars. She needed support and growth in her profession and new ways of teaching. While all the three teacher educators complained about lack of support from the university, school of education and their departments, Susan created a strong professional support base with teacher educators she met at conferences and in her circle of networks. Even though she was not enjoying the support of her own colleagues at the university (with the exception of the dean), she had the support of others that kept her motivated in trying to bring change to her practice.

Unfortunately, most teacher educators do not make their knowledge about teaching current. A recent study conducted by the education Policy Unit at the University of Western Cape (UPU-UWC) by Subotsky (1997) supports this view. He goes on to indicate that there is a lack of basic academic practices by faculty at Historically Black Universities and sporadic and uncoordinated nature of faculty development programs fail to offset the sterility of current teaching practices. These challenges increase the demand for policy and professional development that will encourage teacher educators to make their knowledge about teaching practices current.

**What do these cases tell us about the power of structures for teacher education practice?**

A lot of importance is put on beliefs and experiences (Clark et al, 1987) in understanding any changes in practice. Schmidt et al (1990) assert that beliefs and experiences that are formed through personal experience are likely to hinder the efforts of reformers. However, my study also points at institutional structures as the third powerful impediment to reform. Structures are as essential as beliefs and experiences in changing practice, and they should be made available at the same time as the proposed reform. There are structures that should be in place to go along with the proposed innovations, and lack of certain structures may inhibit innovations. Structures are powerful and if left to stand on the way of teacher educators, who want to change practice, they can impede the change (Fullan and Pomfret 1987).

This study suggests that teacher educators who are successful in changing their practice are nurtured through ongoing professional development communities or network.

For example, Susan had been going to conferences. Although at times there were no funding from the institution to do so, she got external funding because she was keen to exchange her ideas with other teacher educators. Although Simon and Kenneth knew the benefits of going to conferences, the fact that there were no monetary resources from the university made them not to even try to get outside funding. Literature (Peseau, 1982) indicates that poor financial support contributes to conservative thought and behavior in the faculty who are associated with teacher education.

It is also suggested by this study that teacher educators are nurtured through informal professional relationships. Not only are colleagues members of the same faculty, they also share similar theoretical views. All the three educators lacked colleagues in their departments to learn and share ideas with. They indicated how they would have appreciated having colleagues from their department to grow together as professionals. Friedman et al, (1990) were of this view and went on to say that there were no substantive changes in teacher education in part because of lack of change in support structures.

The study also suggests that time is a significant resource in changing practice. Arends et al, (1990) hold the view that most human endeavors are greatly influenced by time. According to Arends et al, time is a resource that always seems to be in short supply. Both Susan and Simon complained about the shortage of time in preparing prospective students. First, they needed time for their students to learn about the new reform. Second, they needed enough time for training prospective teachers in the new skills. Third, they also needed time to model how to implement the reform. They complained that within one year of the University Education Diploma (U.E.D.), they

should teach, supervise prospective teachers in the field and also budget for the unknown time for class boycotts by the whole student body. This study suggests that time for preparing teachers should be extended, so that there could be time to instill new ways of teaching and also for the prospective teachers to put them into practice while they are still at the university.

While Susan, Simon, and Kenneth were affected by the same structures, the way they reacted to them and how they interacted with their practice differed. For example, they all lamented not getting enough funding for conferences, and seminars. But again, in the case of Susan, we see the power of motivation and determination, which can transcend structures to get funding from outside sources. Therefore, teacher educators who do not have initiative in getting resources like Susan will be disadvantaged if resources are not readily available.

Also, these cases tell us that there should be avenues of learning on the part of teacher educators about the mandates of the reform (Cohen and Barnes, 1993; Sarason, 1982). When supportive structures are inadequate, teacher educators who may have been ready to accept and try the change may not do it because of the lack of support from the institution (McLaughlin and Talbert, 1993). For example, in Kenneth's case, support played a negative role in his changing of practice. Because there was no support, he was discouraged even to try.

All three teacher educators claimed that they got the ideas about change from reading books and by going to conferences. Kenneth went to conferences at times only when he was funded. Susan first learned about the constructivist way of teaching from her graduate studies, and then read books and went to conferences where she exchanged

ideas with colleagues from other universities. Simon claimed that he got the ideas about the reform by reading on his own. They all did not get support within their institution, departments and school of education, although Susan asked for support from the dean. The library did not carry recent journals and there were no books written in the way of the reform.

We also learn from these cases that when incentives are not tied to change of curriculum, some teacher educators get discouraged to change their practice (Elijah, 1996). For example, Kenneth and Simon were discouraged about the lack of promotion. Susan talked about the stress she got from changing her curriculum without promotion because one's publications and reading scholarly papers would get one promoted. Susan had learned that being a good teacher was not good enough to promote her. She at times did not spend much time in lesson plans, especially during the time when she had to prepare abstracts and papers for presentations. She mentioned that she felt stress and pressure that came with the preparation of abstracts, and publishing, i.e. the weight that came with publishing and carrying out the kind of work that was rewarded by the university. She felt that a lecturer who was changing curriculum like her should be promoted because she was being creative.

### **Implications to Practice**

One of the findings of my study is that to be exposed to the same experiences do not guarantee the same results. Change of beliefs, experiences, and knowledge seem to require much more "experiential confrontation and exploration." (Darling-Hammond, 1990).



What works in a particular context is usually considered when it comes to changing practice. This study reveals and suggests that in changing practice, attention should be given to the importance of local factors rather than ignoring them. Kenneth's story is especially significant here. If teacher educators can sense that the reform has ignored the local context, it may be cause of its rejection.

The lack of certainty shown by Simon about whether he was implementing the right curriculum reform in class may signify the difficulties teacher educators have in understanding the reform. Recall also that Kenneth had difficulties in differentiating between what he was doing in the past and what he was expected to do by the new reform. These likely reflect the limited knowledge and information they had about the reform. Darling-Hammond (1990) suggests that if teachers have too little information about the reform, they will be unable to put its implications intellectually. This study supports this view, but further suggests that without in-depth training about the reform, teacher educators find it hard to have a clear conceptual meaning of the constructivist approach to teaching. Further, it seems that for the policy to be well understood, it should be well communicated, especially to those who are important to the innovation process- teacher educators- for they are supposed to interpret and make it work.

Preparedness to change one's beliefs seems to be significant in changing practice. This finding raises some challenges for practice. If changing beliefs is determined by being prepared to do so, what will make teacher educators be prepared to trade their beliefs to new beliefs? How prepared will teacher educators be to change their beliefs? Considering that it took many years to form beliefs, reformers confront a very thorny

issue of justifying their direction of change and making it appealing to teacher educators.

The data suggest that teacher educators need support in trying to change their teaching.

Short exposure to teacher education was a concern for all my respondents. This finding raises some challenges for teacher education programs. Although teacher educators may be prepared to change their practices, it may be difficult to do so, given a brief encounter with the classroom that prospective teachers have both with their teacher educators and during practice teaching. Structural arrangements for the last year of teacher preparation seem to sabotage any changes that teacher educators may try to bring about. Teacher educators may gear their teaching strategies to the type of responses expected by the test or examination.

The importance of content and pedagogical knowledge has featured strongly in Susan's success in changing her practice. This poses some challenges to policy. If changing practice takes having content and pedagogical knowledge, when should teacher educators have that knowledge? How much content should they have in order to be able to teach adventurously? What should be the source(s) of this knowledge? It seems unlikely that teacher educators can learn all about content and pedagogical knowledge from textbooks. Support in a form of seminars, and conferences may strengthen their knowledge on pedagogical content knowledge

This study reveals the centrality of professional development and support in changing practice. Without an ongoing professional development and support both inside and outside the institution teacher educators may not have colleagues to learn with. Recall that all respondents lamented the lack of support and professional development at their institution and that it was not easy for them- with the exception of Susan- to attend

conferences because of lack of funding. If the policy makers do not make funds available for professional development of teacher educators, it seems that they would be sacrificing their own reform. At worst, it may not take off the ground.

The issue of rewards is a very sensitive one, more so when rewards are not tied to curriculum development. My study reveals that if there are no rewards in curriculum development, teacher educators may be discouraged to change their practice.

My findings should help policy makers understand clearly the complex interplay between beliefs, experiences and structures. Research (Darling-Hammond, 1990) shows that reforms often fail because policymakers do not take into consideration teacher educators' beliefs. But my study takes this further by suggesting that institutional structures affect the practice of teacher educators as well and at the same time. We need to look at all three -beliefs, experiences and structures - to get a full picture of how complex it can be to change one's practice.

## **APPENDIX**

### **RECOMMENDATIONS FROM THE PARTICIPANTS**

#### Departmental meetings

- In our meetings, we must always address the questions: what are we teaching? What are the problems of teaching this way?
- Discussion at the departmental level about the reform that is being advocated would help in shedding the light on what OBE means, how we are expected to do it in class.
- There should be time for faculty to develop themselves through teaching one another.
- Faculty should be able to look forward to a meeting at the departmental level that would discuss the new reform and should take leadership in doing what is expected.
- I would like other staff members to support me by going with me to class so that we can look at each other's teaching and offer constructive criticism. I want to be observed by colleagues and I should also be able to go with them to their class to do the same. In that way, we can develop the curriculum together and bring about new changes in teaching in the department.

#### Institutional Support

- Organize meetings for academic discourse for faculty to talk about teaching and learning.
- Instead of only addressing institutional transformation, we should also have discussions on transforming teaching. How do we transform teaching from its present status? What is excellent teaching at a university level? Discussions on how to change teaching from its present state would be valuable.
- I would like to see interdisciplinary support in terms of research, for example, how do you do research in Education or Geography? Professors from different schools should come and show us how to present papers. They (professors) do not present papers here but elsewhere. Why cannot we co-author papers with professors so that we, the junior member, can be mentored?



### Reward Structure

- Professors' should co-author papers in order to teach junior lecturers how to do research and publish.
- People who are due for promotions should also be judged on community service and not solely on research and credentials.

## Bibliography

- Adams, K. (1971). Dialectic of Higher Education for the Colonized: The Case of Non-White Universities in South Africa. In H. Adams (Ed.), *South Africa: Sociological Perspectives*. London: Oxford University Press.
- Arends, R. I., Murphy, J., & Christensen, P. (1986). Faculty Development for Teacher Educators. *Journal of Teacher Education*, 37(5), 17-22.
- Ball, D. L. (1988). Unlearning to Teach Mathematics. *For the Learning of Mathematics*, 81(1), 40-48.
- Ball, D. L. (1989). *Breaking with Experience in Learning to Teach Mathematics: The Role of the Preservice Methods Course*. Issue Paper 89-10. East Lansing, MI: National Center for Research on Teacher Education.
- Ball, D. L. (1990). Breaking with Experience in Learning to Teach Mathematics: The Role of Preservice Methods Course. *For the Learning of Mathematics*, 10(2).
- Bandura, A. (1982). Self-Efficacy Mechanism in Human Agency. *American Psychologist*, 37, 122-147.
- Beyer, L., & Zeichner, K. (1982). Teacher Training and Educational Foundations: A Plea for Discontent. *Journal of Teacher Education*, 33(3), 18-23.
- Bowers, C. A., & Flinders, S. D. (1990). *Responsive Teaching: An Ecological Approach to Classroom Patterns of Language, Culture and Thought*. New York: Teachers' College Press.
- Black, A., & Ammon, P. (1992). A Developmental –Constructivist Approach to Teacher Education. *Journal of Teacher Education*, 43(5), 323-335.
- Blackwell, P. (1996). Reform under Adversity. *Teacher Education Quarterly*, 23(1), 19-26.
- Brickhouse, N. W. (1990). Teachers' Beliefs about the Nature of Science and their Relationship to Classroom Practice. *Journal of Teacher Education*, 41(3), 53-62.
- Burgess, J. (Ed.) (1985). *Strategies of Educational Research: Qualitative Methods*. London: Falmer Press.

- Burch, B. (1989). Perceptions of the Role and Scholarly Reputation of Education Professorate. In R. Wisniewski, & E. Ducharme (Eds.), *The Professors of Teaching: An Inquiry*. Albany, New York: State University of New York Press.
- Bush, N. (1987). Teacher Education Reform Lessons from the Past Half Century. *Journal of Teacher Education*, 38(3), 13-19.
- Cohen, D. K. (1989). Teaching Practice: Plus ca Change. In P. W. Jackson (Ed.). *Contributing to Educational Change: Perspectives on Research and Practice*. Berkeley, CA: McCutchan.
- Cohen, D. K. (1990, Fall). A Revolution in One Classroom: The Case of Mrs. Oublier. *Educational Evaluation and Policy Analysis*, 12(3), 327-345.
- Cohen, D. K., & Barnes, C. (1993). Pedagogy and Policy. In D. K. Cohen, M. W. McLaughlin, & J. E. Talbert (Eds.). *Teaching for Understanding: Challenges for Practice, Research, and Policy*. San Francisco: Jossey-Bass.
- Cole, A L., & Knowles, J. G. (1996, Summer). Reform and Being True to Oneself: Pedagogy, Professional Practice and the Promotional Process. *Teacher Education Quarterly*, 23 (3), 109-126.
- Cochran-Smith, M. (1991). Learning to Teach against the Grain. *Harvard Educational Review*, 61(3), 279-310.
- Clark, C. M., & Peterson, P. L. (1986). Teachers' Thought Process. In M. C. Wittrock (Ed.). *Handbook of Research on Teaching* (3<sup>rd</sup> ed.). New York: Macmillan.
- Clifford, G. J., & Guthrie, J. W. (1988). *Ed Schools: A Brief for Professional Education*. Chicago: The University of Chicago Press.
- Cusick, P. (1981, Summer). A Study of Networks Among Professional Staff in Secondary Schools. *Educational Administration Quarterly*, 17(3), 114-138.
- Curriculum. (1992). *Report of the NEPI Curriculum Research Group: A Project of the National Education Co-ordinating Committee*. Cape Town: Oxford University Press.
- Curriculum 2005 (1997). *Lifelong Learning for the 21<sup>st</sup> Century*. National Department of Education: Pretoria.
- Chisholm, L., Soudien, L., & Glamour, D. (1997). *Implementing Equity in Post-Apartheid Education*. Johannesburg: University of the Witwatersrand, Education Policy Unit.



- Darling-Hammond, L. (1990) Instructional Policy into Practice: The Power of the Bottom over the Top. *Educational Evaluation and Policy Analysis*, 12(3), 339-347.
- Darling-Hammond, L. (1994). *Professional Development Schools: Schools for Developing a Profession*. New York: Teachers' College Press.
- Darling-Hammond, L. (1997). *The Right to Learn*. San Francisco: Jossey-Bass.
- Datnow, A., Hubbard, I., and Mehan, H. (1998). *Educational Reform Implementation: A Co-constructed Process*: Technical report. San Cruz, CA: Center for Research on Diversity and Excellence.
- Datnow, A., & Castellano, M. (2000 Fall). Teachers' Responses to Success For All: How Beliefs, Experiences, and Adaptations Shape Implementation. *American Educational Research Journal*, 37(3), 775-799.
- Department of Education, DOE. (1997). Annual Report, 1996. Pretoria: DOE  
*Understanding the National Qualifications Framework: A Guide to Lifelong learning*. Education Information Center EIC. Johannesburg: Heinemann Educational Publishers.
- Diamond, R.M. (1993). Changing Priorities and the Faculty Reward System. In R. M Diamond, & B. E. Adam (Eds.), *Recognizing Faculty works: Reward systems for the year 2000*. San Francisco: Jossey-Bass.
- Duffy, G., & Roehler, H. (1986). Constraints on Teacher Change. *Journal of Teacher Education*, 37(1), 55-58.
- Ducharme, E. R., & Agne, R. M. (1989). Professors of Education: Uneasy Residents of the Academe. In R. Wisniewski & E. Ducharme (Eds.). *The Professors of Teaching: An Inquiry*. Albany, New York: State University of New York Press.
- Ducharme, M. (1994). A Study of Teacher Educators: Research from the U.S.A. In M. Ducharme & E. Ducharme, *Journal of Education for Teaching*, 22(1).
- Ebmeir, H. S., Twombly, S., & Teeler, D. (1991). The Comparability and Adequacy of Financial Support for Schools of Education. *Journal of Teacher Education*, 42(3), 226-235.
- Elijah, R. (1996, Summer). Professional Lives; Institutional Contexts: Coherence and Contradictions. *Teacher Education Quarterly*, 69-90.
- Elmore, R., & Sykes, G. (1992). Curriculum Policy. In P. Jackson (Ed.), *Handbook of Research on Curriculum*. New York: Macmillan.
- Enslin, P. (1984). The Role of Fundamental Pedagogy in the Formulation of

- Educational Policy in South Africa. In P. Kallaway (Ed.), *Apartheid and Education: Education for Blacks in South Africa*. Johannesburg: Raven Press.
- Enslin, P. (1988). The State of Fundamental Pedagogics. In *Perspectives in Education: Education of Black South Africans*, 10(1), Johannesburg: University of the Witwatersrand.
- Feiman-Nemser, S., & Featherstone, H. (1992). *Exploring Teaching: Reinventing an Introductory Course*. New York: Teachers College Press.
- Feiman-Nemser, S. (1983). Learning to Teach. In L. Shulman & G. Sykes (Eds.), *Handbook on Teaching and Policy*. New York: Longman.
- Feiman-Nemser, S., & Remillard, J. (1996). Perspectives on Learning to Teach. In F.B. Murray (Ed.), *The Teacher Educators' Handbook: Building a Knowledge Base for the Preparation of Teachers*. San Francisco: Jossey-Bass.
- Firestone, W. A. (1993). Alternative Arguments for Generalizing from Data as Applied to Qualitative Research. *Educational Researcher*, 22(4), 16-23
- Florio, S., & Lensmire, T. J. (1990). Transforming Prospective Teachers' Ideas about Writing Instruction. *Journal of Curriculum Studies*, 22(2).
- Friberg, H.J., & Waxman, H. R. (1990). Changing Teacher Education. In W. R. Houston, *Handbook of Research on Teacher Education*. New York: Macmillan.
- Friere, P. (1970). *Pedagogy of the Oppressed*. New York: The Seabury Press.
- Fullan, M. G., & Park P. (1981). *Curriculum Implementation: A Resource Booklet*. Toronto: Ontario: Ontario Ministry of Education.
- Fullan, M. G., & Promfret, A. (1977, Winter). Research on Curriculum and Instruction Implementation. *Review of Educational Research*, 47(2), 335-397.
- Fullan, M. G. (1991). *The New Meaning of Educational Change*. (2<sup>nd</sup> ed.). New York: Teachers College Press.
- Fullan, M., & Miles, M. (1992). Getting Reform Right: What Works and What Doesn't. *Phi Delta Kappan*, 76, 591-596.
- Fullan, M. G. (1993). Innovation, Reform, and Restructuring Strategies. In G. Cawelti (Ed.), *Challenges and Achievements of American Education: 1993 Yearbook for Supervision and Curriculum Development*. Alexandria, VA: ASCD.



- Gaff, J.G., & Wilson, R.C. (1971). *Faculty Values and Improving Teaching*. G. M. Smith. (Ed.), *New Teaching New Learning*. San Francisco: Jossey-Bass Inc
- Gay, L. R. (1981). *Educational Research: Competencies for Analysis and Application*. Columbus, OH: Merrill Publishing Company.
- Garden, R. L. (1980). *Strategies, Techniques, and Tactics*. Homewood, IL: The Dorsey Press.
- Goodlad, J. I. (1984). *The Place Called School: Prospects for the Future*. New York: McGraw-Hill.
- Goodlad, J. I. (1990). *Teachers for our Nation's Schools*. San Francisco: Jossey-Bass.
- Goodman, J. (1988). University Culture and the Problem of Reforming Field Experiences in Teacher education. *Journal of teacher Education*, 39(5), 45-53.
- Guilfoyle, K., Hamilton, M. L., Pinnegar, S., & Placier, M (1996). Negotiating Balance between Reforming Teacher Education and Forming Self as Self Educator. *Teacher Education Quarterly*, 23(3).
- Glaser, B., & Strauss, A. (1970). Theoretical Sampling. In N. K. Denzin (Ed.). *Sociological Methods*. Chicago: Aldine.
- Griffin, G. A. (1995, Autumn). Slicing the System: Necessary Conditions for the Teaching for Understanding. *The Teacher Educator*. 31(2), 107-123.
- Gross N., Giacuinta, J., & Beinstein, M. (1971). *Implementing organizational Innovations: A sociological Analysis of Planned Educational Change*. New York: Basic Books.
- Grossman, P. L. (1990). *The Making of a Teacher*. New York: Teachers College Press.
- Hartshorne, K. (1990). *Crisis and Challenge. Black Education 1910-1990*. Cape Town: Oxford University Press.
- Holt- Reynolds, D. (1991). *Practice What We Teach*. Research Report 91-5. East Lansing, MI: The National Center for Research on Teacher Learning.
- Holt-Reynolds, D. (1992). Personal History-Based Beliefs as Relevant Prior Knowledge in Coursework. *American Education Research Journal*, 29(2), 325-349.
- Howey, K. R., & Zimpher, N. L. (1989). *Profiles of Preservice Teacher Education: Inquiry into the Nature of Programs*. Albany: State University of New York Press

- Hlatshwayo, S. A. (2000). *Education in Independence: Education in South Africa, 1658-1988*. Westport, CT: Greenwood Press.
- Jansen, J D. (1995). Transforming Teacher Education: Curriculum Perspective. In *Towards an Operational Framework for Teacher Development and Support*. The Unit for Higher and International Human Science Research Council (Ed.) Vanderbijlpark: Riverside sun
- Jansen, J. D. (1998, November). Curriculum Reform in South Africa: A Critical Assessment of Outcomes Based Education. *Cambridge Journal of Education*, 28(3), 321-384.
- Joyce, B., Yarger, S., & Howey, K. (1977). *Preservice Teacher Education*. CA: Palo Alto.
- Katz, L. G., & Rath, J. (1992). Six Dilemmas in Teacher Education. *Journal of Teacher Education*, 43(5), 376-364.
- Kember, D., & Gow, L. (1992, April). Action Research as a Form of Staff Development in Higher Education. *Higher Education*, 23(30), 297-310.
- Klein. (1989) What You Can— and Can't— Learn from Focus Group. *D and B Reports*, 37, 26-28.
- Kloosterman, P., & Stage F. K. (1992). Measuring Beliefs about Mathematics Problem Solving. *School Science and Mathematics*, 3, 109-115.
- Knowles, J. G., & Holt-Reynolds, D. (1991). Shaping Pedagogies through Personal Histories in Preservice Teacher Education. *Teacher College Record*, 93(1), 87-113.
- Langer, J. (2000, Summer). Excellence in English in Middle and High School: How teachers' Professional Lives Support Student Achievements. *American Educational Research Journal*, 37(2), 397-439.
- Labovitz, G. H., & Rosansky, V. (1997). *The Power of Alignment*. New York: John Wiley and Sons, Inc.
- Lederman, L. C. (1990). Assessing Educational Effectiveness: The Focus Group Interview as a Technique for Data Collection. *Communication*, 38 117-127.
- Lanier, J. E., & Little, J. W. (1986). Research on Teacher Education. In M. C. Wittrock (Ed.), *Handbook of Research on Teaching* (3rd ed.), 527-569.
- Lareau, A. (1989). *Home Advantage: Social Class and Parental Intervention*. London: Falmer.

- Lavine, S. (1988). *The Promise of Professional Development*. Boston: Allyn and Bacon
- Lederman, L. C. (1990). Assessing Educational Effectiveness: The Focus Group Interview as a Technique for Data Collection. *Communication*, 38, 117-127.
- Liston, D. P., & Zeichner, K. (1987). Critical Pedagogy and Teacher Education. *Journal of Education*, 169(3), 118-135.
- Lortie, D. C. (1975). *Schoolteacher: A Sociological Study*. Chicago: The University of Chicago Press.
- Manion, L., & Cohen, L. (1994). *Research Methods in Education*. New York.
- Maxwell, J. (1992, Fall). Understanding and Validity in Qualitative Research. *Harvard Educational Review*, 62(3), 279-300.
- Miller, P. S., & Stayton, V. D. (1999). Higher Education Culture: A Fit or Misfit with Reform in Teacher Education. *Journal of Teacher Education*, 50(4), 290-302.
- McCaleb, J. L., Borko, H., Arends, R. A., Garner, R., & Mauro, L. (1987). Innovation in Teacher education: The Evolution of a Program. *Journal of Teacher Education*, 38(4), 57-64.
- McLaughlin, M. W. (1991). Enabling Professional Development: What have we Learned? In A. Lieberman, & L. Miller (Eds.), *Staff Development of Education in the 90s*. New York: teachers College Press.
- McLaughlin, M. W., & Talbert, J. E. (1993). How the World of Students and Teachers Challenges Policy Coherence. In S. H. Furhman (Ed.), *Designing Coherent Educational Policy*. San Francisco: Jossey-Bass.
- National Center for Research on Teacher Education. (1991). *Teacher Education and Learning to Teach. Final Report*. East Lansing, MI: National Center for Research on Teacher Education.
- National Education Policy Investigation* (NEPI, 1992). Cape Town: Oxford University Press.
- NCHE Discussion Documents (1996). *A Framework for Transformation*. Pretoria: South Africa.
- Nolan, J. (1985). Potential Obstacles to Internal Reform in Teacher Education: Findings from a Case Study. *Journal of Teacher Education*, 36(4), 12-16.
- Nkabinde, Z. P. (1997). *Analysis of Educational Challenges in the New South*. Lanham,

MD: University Press of America.

- Pajares, M. F. (1992, Fall). Teachers' Beliefs and Educational Research: Clearing up a Messy Construct. *Review of Educational Research*, 62(3), 307-332.
- Peseau, A. (1982). Developing an Adequate Resource Base for Teacher Education. *Journal of Teacher Education*, 33(4), 13-15.
- Pollicino, E.A. (1996). *Faculty Satisfaction with Institutional Support as a Complex Concept: Collegiality, Workload, and Autonomy*. A Paper Presented at the Annual Meeting of the American Educational Research Association.
- Portman, P.A. (1993, Spring). Barriers to Change in Teacher Education. *Action in Teacher Education*, 15(2), 14-21.
- Pretoriorious, F. (Ed.) (1998). *Outcome-Based Education in South Africa*. Johannesburg: Hodder & Stoughton.
- Raymond, M., & Santos V. (1995). Pre-service Elementary Teachers and Self-Reflections: How Innovation in Mathematics Teacher Preparation Challenges Mathematics Beliefs. *Journal of Teacher Education*, 46(1), 58-70.
- Reddy, J. (Ed.). (1996). *National Commission on Higher Education*. Pretoria.
- Reid, J. (1991). *Transforming Knowledge in undergraduate Education*. East Lansing, MI: National Center for Research on Teacher Learning.
- Reynolds, R. J. (1995). The Professional Self-esteem of Teacher Educators. *Journal of Teacher education*, 46(3), 216-227.
- Republic of South Africa Department of Education (RSADE). (1997). *Outcome-based Education in South Africa*. Pretoria.
- Reyes, P., Imber, M. (1992). Teachers' Perceptions of the Fairness of their Workload and their Commitment, Job Satisfaction and morale: Implications for Teacher Evaluation. *Journal of Personnel Evaluation in Evaluation*, 5(3), 291-302.
- Rikard, G. L., Knight, S., & Beacham, G. B. (1996, Winter). The Application of Focus Group Interviews for Educational Program. *The Teacher Educator*, 31(3), 248-257.
- Rillings, M., Karwowski, L., Sharp, C., & Putnam, J. (1990). The Emerging Knowledge Base in Teacher Education and Faculty Renewal and Program Redesign at Glassboro (NJ) State College. *Education*, 111(1), 5-42.

- Richardson, V. (1990, February). Significant and Worthwhile Change in Teaching Practice. *Educational Researcher*, 19(1).
- Roychoudhury, A., Kahle, J. B. (1999). Science Teaching in the Middle Grades: Policy Implications for Teacher Education. *Journal of Teacher Education*, 50(4.), 278-299.
- Sarason, S. (1982). *The Culture of the School and the Problem of Change* (2<sup>nd</sup> ed.). Boston: Allyn & Bacon.
- Samuelowicz, K., & Bain, J. D. (1992). Conceptions of Teaching held by Academic Teachers. *Higher Education*, 24, 93-111.
- Schmidt, W. H., & Kennedy, M. M. (1990). *Teachers and Teacher Candidates' Beliefs and the Subject Matter and about Teaching Responsibilities*. RR: 90-4. East Lansing, MI: National Center for Research on Teacher Education.
- Smith, G. K. (Ed.). (1971). *New Teaching, New Learning*. San Francisco: Jossey Bass.
- Soudien, C., & Baxen, J. (1997). Transformation and Outcomes. Based Education in South Africa: Opportunities and Challenges. *Journal of Negro Education*, 66(4), 449-459.
- Subotzky, G. (1997). Redefining Equity: Challenges and Opportunities Facing South Africa's Historically Black Universities Relative to Global and National Changes. *Journal of Negro Education*, 66(4), 496-521.
- Schram, P., Wilcox, S., Lanier, P., & Lappan, G. (1988). *Changing Mathematical Conceptions of Preservice Teachers: A Content and Pedagogical Intervention*. Research Report 88-4. East Lansing, MI: National Center for Research on Teacher Education.
- Schwann, C., & Spady, W. (1998): Why Change does not Happen and How to Make Sure It Does. *Educational Leadership*, 55(7), 45-47.
- Stegel, B. S., & Tom, A. R. (1996). Changes and Choices in Teaching Methods. *Journal of Teacher Education*, 65(2).
- Sykes, G. (1984). Contradictions, Ironies, and Promises Unfulfilled: A Contemporary Account of the Status of Teaching. *Phi Delta Kappan*, 65(2), 87-93.
- Schon, D. A. (1990). *Educating the Reflective Practitioner*. San Francisco, CA: Jossey-Bass.



- Shulman, L. S. (1986). Those who Understand: Knowledge Growth in Teaching. *Educational Researcher*, 15(2), 4-14.
- Shulman, L. S. (1987). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review*, 57, 1-22.
- Shulman, L. S. (1991). *Pedagogical Ways of Knowing*. International Yearbook on Teacher Education. Institute of Education: Singapore
- Spilane, J. P., & Zeuli, J. S. (1999). Reform and Teaching: Exploring Patterns of Practice in the Context of National and State Mathematics Reforms. *Educational Evaluation and Policy Analysis*, 21(1), 1-27.
- Strauss, A., & Corbin, J. (1991). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. CA: SAGE Publications, Inc.
- Tabachnick, B. R., Popkewitz, T.S., & Zeichner, K. M. (1979-1980). Teacher Education and the Professional Perspectives of Student Teachers. *Interchange*, 10, 12-29.
- Trigwell, L., Posser, M., & Taylor, P. (1994). Qualitative Differences in approaches to Teaching First Year University Science. *Higher Education*, 27(1), 75-84.
- Tom, A. R. (1997). *Redesigning Teacher Education*. New York: SUNY Press.
- Tyack, D., and Cuban, L. (1995). *Tinkering Toward Utopia: A Century of Public School Reform*. Cambridge, MA: Harvard University Press.
- Understanding National Qualifications: A guide to Lifelong Learning* (1996). EIC, Johannesburg: Hodder & Stoughton.
- Unterhalter, E., & Botha, T. (1991). *Education in a future South Africa*. Johannesburg: Ravan Press.
- Vithal, R. (1998). *The Politics of Doing Mathematics Education Research in South Africa*: Proceedings of the Sixth Annual Meeting of the Southern African Association for Research in Mathematics and Science Education. University of South Africa.
- Waller, W. (1932). *The Sociology of Teaching*. New York: Russel & Russel.
- Watkins, W. H. (1990). Teaching and Learning in Black Colleges: 130 year Retrospective. *Teacher Education*, 3(1), 10-25.
- Wilson, S. M. (1994). *Is There a Method in This Madness?* Craft Paper 94-3. East Lansing, MI: National Center for Research on Teacher Learning.

- Wilson, S. M., & McDiarmid, G.W. (1996). Something Old, Something New: What do Social Studies Teachers Need to Know? In F.B. Murray, *The Teacher Educator's Handbook: Building a Knowledge Base for the Preparation of Teachers*. San Francisco: Jossey-Bass.
- Wilson, S., Shulman, L. S., & Richert, A. E. (1987). "150 Different Ways" of Knowing: Representations of Knowledge in Teaching. In J. Calderhead (Ed.), *Exploring Teachers' Thinking*. Eastbourne, England: Cassell.
- Wilcox, S., Schram, P., Lappan, G., & Lanier, P. (1991). *The Role of Community in Changing Preservice Teachers' Knowledge and Beliefs about Mathematics Education*. Research Report 91-1. East Lansing: Michigan State University, National Center for Research on Teacher Education.
- Wisniewski, R., & Ducharme, D. (Eds.). (1989). *The Professors of Teaching: An Inquiry*. New York: State University of New York Press.
- White Paper on Education and Training*. (1995). Department of Education, Cape Town, Notice No. 196 of 1995.
- Wolpe, H., & Unterhalter, E. (1991). Introduction. In E. Unterhalter, H. Wolpe, & T. Botha, (Eds.). *Apartheid Education and popular Struggles*. Johannesburg: Ravan Press.
- Young, B. J., & Bartel, V. B. (1996). Change in Teacher Education: There are Dragons to Slay. *The Teacher Educator*, 31(3), 202-216.
- Zeichner, K. M., Liston, D. P. (1987, February). Teaching Student Teachers to Reflect. *Harvard Educational Review*, 57(1), 23-48.
- Zeichner, K. M. (1988). *Understanding the Character and Quality of the Academic and Professional Components of Teacher*. Research Report 88- 1. East Lansing, MI: National Center for Research on Teacher Learning.
- Zeichner, K., & Liston, D. (1987). Teaching Student Teachers to Reflect. *Harvard Educational Review*, 57, 23-48.