CONTINUOUS ASSESSMENT IN POST-SECONDARY TEACHER TRAINING IN GHANA: A CASE STUDY EVALUATION

ALBERT KWAME AKYEAMPONG

Thesis submitted to the Faculty of Education
University of Nottingham, for the degree
of Doctor of Philosophy

September, 1997

ACKNOWLEDGEMENTS

I would like to thank most sincerely my supervisor, Professor Roger Murphy, for the regular discussions I had with him which contributed to the production of this thesis. His critical comments about my arguments and thoughtful guidance at the field research stage went a long way in making this study possible.

I gratefully acknowledge the Government of Ghana for the scholarship which enabled me to undertake this advanced study. I am equally grateful to Dr Chris Akwesi, the Director of the Institute of Education University of Cape Coast, for his encouragement and support throughout my fieldwork in Ghana.

I am indebted to my wife, Betty who has offered encouragement and borne with the inevitable sacrifices at all stages of the production of this thesis and to Susan my daughter who has been such a good child. I would also like to thank my parents and family for their prayer support, Mr Drew Geldart who has remained an encouraging friend during my stay in the UK.

Finally to my Lord Jesus, to him I owe everything. To God be the glory.

ABSTRACT

The importance of and preference for assessing learning outcomes using a variety of assessment techniques and containing data from many sources, rather than the sole dependence on the one-shot examination, has long been recognised worldwide. This has led to major assessment policy changes in both developed and developing countries. In Ghana, this change has led to the introduction of continuous assessment at all levels of secondary schooling and post-secondary teacher training, to operate in parallel with external examinations. Although in Ghana evaluation studies of continuous assessment have been conducted for the secondary school level, none has so far been done for the post-secondary teacher training level.

The purpose of this research was therefore, to examine the nature and scope of activities and problems that have to do with the practice of continuous assessment at the post-secondary teacher training level in Ghana. The research also examined the training and guidance provided for those undertaking continuous assessment, and the impact of the new assessments upon teaching and learning.

A qualitative case study was conducted in three selected training colleges from the months, February to March of 1996 and January of 1997. The selected colleges were considered to be a fair representation of the teacher training college system in Ghana. The field research also included interviews with key officials associated with the post-secondary teacher training system. Findings from the multi-site case study evidence were presented and analysed for their significance.

The findings of the research suggest that, many problems continue to threaten the benefits derivable from using continuous assessment in assessing students in the training colleges. The key findings that emerged as significant includes: operational and structural conditions in the colleges, professional support systems for tutors to carry out continuous assessment, tutor competency in assessment and considerations rooted in the values and beliefs of tutors about assessment which define their assessment culture and agenda.

Evidence from those findings was then used as a basis for conclusions about improving continuous assessment in post-secondary teacher training, in Ghana. Recommendations for policy implementation and potential areas for further research were also made.

DECLARATION

I confirm that this thesis is my original work. It does not include material which has previously been presented for the award of a degree in this or any other University, nor does it include any published material other than that published by myself, or myself and my supervisor.

Signed: ....

ALBERT KWAME AKYEAMPONG

September, 1997

TABLE OF CONTENTS

ix

LIST OF TABLES AND FIGURES

LIST OF APPENDICES

PART I

CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1   Introduction

Teacher Education has in recent years been the subject of much debate especially about the professional significance of training programmes. In response to pressure for change, approaches to training have moved more towards emphasising the practical and professional related aspects with new implications for student teacher assessment (Tickle, 1987). For instance, in many developed countries there have been significant changes to student teacher assessment closer to the professional performance of teaching (Dwyer, 1990; Murname, 1991; Haertel, 1991). Also, many teacher training systems have reduced quite considerably the total examination-oriented assessment and instead promoted assessment procedures that are more formative in orientation and are closer to the task of teaching. In Britain for example, recent government reforms of initial teacher training (ITT) have focused on developing certain role-derived teacher competencies considered necessary for successful teaching. Training institutions have also been encouraged to develop their assessments along these competence criteria and within a framework of continuous assessment.

Many professional educators have discussed the appropriate form the assessment of student teachers should take in order to relate more closely to the practical and professional nature of the teaching profession. Murphy et.al., (1993), for example, advocate an assessment system for teacher training in which the outcome of professional

learning is assessed using a wide range of assessment procedures with the results presented as a profile of achievements and progress. This approach appears to have gained wide support and implementation in many teacher training systems in western countries, particularly Britain. According to proponents of this approach, it can perform a variety of formative and summative functions and play an important role in continuing teacher development and appraisal after the initial period of training (Murphy et al., 1993; Whitty, 1994; McCulloch, 1994; Whitty & Wilmott, 1991). The emerging consensus is that assessment procedures in teacher education need sufficient diversification to capture evidence of a much wider scope of professional learning and experiences deemed as vital for successful teaching. Therefore, assessment within teacher training should move away from a culture of testing or examinations to a mixed system of assessment comprising essays, projects, assignments under the framework of continuous assessment (Murname, 1991; Dywer, 1990). Although many teacher education systems in developed countries have long registered such moves, in Ghana attempts to secure this shift is only beginning.

1.1.1 Background to Moves towards Assessment Reform in Teacher Education in Ghana.

Ghana, like many developing countries, has a strong culture of examinations that evolved from early colonial education. The inherited educational system, particularly with its dependence on the traditional single examination has been accused of undermining good quality teaching and learning in the Ghanaian classroom (Ghana, Ministry of Education and Culture, 1987). Since attaining independence from British colonial rule in 1957, Ghana made efforts to reform its educational system to meet national aspirations.

2

Initial attempts at reform focused almost entirely on expanding educational provision and making access to education more equitable at all levels of the educational system. More recently, however, the focus of reform interest changed to issues about curriculum and examinations after both had been criticised for contributing to the continued decline in the quality of the country's education. According to the critics, education had virtually been reduced to teaching students to pass examinations that would move them up the next ladder of the educational system. Consequently, it had lost touch with the learning needs of most students and sidelined many through the highly selective examination system that offered little opportunity for all students to show what they could achieve (Addae-Mensah et al., 1973; Akplu, 1989). Such criticisms have a long history in Ghana's educational development.

In 1974, a commission known as the "Dzobo Commission" was set up to examine these issues in detail and make recommendations for improving the educational system. Among other things, the commission suggested changes to the examination system to make it more efficient and responsive to the needs of actual classroom teaching and learning. It also recommended a total overhauling of the early stage of teacher training to achieve maximum effectiveness in producing teachers who could meet the challenges of educational reform (Ghana, Ministry of Education and Culture, 1974b). From then on the Dzobo commission report set the agenda for debates, discussions and conferences at which several proposals were submitted to improve the country's educational system.

Within this evolving climate of debate and review, the Institute of Education of the University of Cape Coast organised a National Conference on Teacher Education in 1986. The objective of the conference was to undertake a critical appraisal of the country's

teacher education programme to make it more effective. Participants at the conference were mostly education policy-makers, professional educators and experts in the field of teacher education. One of the areas given close attention at the conference was the assessment and certification of student teachers. It was noted with concern that:

> "The current method of final assessment based on summative or end-of-programme assessment through final examination moderated by an external agency only tests the pre-service teacher's ability to demonstrate acceptable cognitive objectives" (Institute of Education, University of Cape Coast, September 1986)

To redress this problem it was recommended that:

> "continuous assessment of students should be adopted at all levels of teacher education. A committee should be appointed to draw up operational guidelines for effective implementation of any continuous assessment programme." (ibid, 1986).

It has to be pointed out that the use of continuous assessment (hereafter referred to as CA) was not a new phenomenon in teacher education in Ghana. It had been introduced and used for some time long before Independence but was abandoned after the number of training colleges began to grow and concerns about comparability arose. Again, it was used in the 1970's for some subjects in training colleges but later collapsed, due partly it appears to lack of proper conceptualisation and professional interest. (Issues surrounding this are discussed in more detail in Chapter Two).

The interest in the introduction of CA into teacher education actually reflected growing government interest in introducing it into the entire Basic Education system.

This began in 1987 when the then government launched its Education Reform Programme (ERP) with the objective of making education more responsive to individual and societal needs.

> "The need for the reform was based on the recognition that any system of education should aim at serving the needs of the individual, the society in which he lives and the country as a whole" (Ghana, Ministry of Education and Culture, 1987)

This objective underpinned changes to the countrys' assessment system. The introduction of CA became recognized by reformers as presenting the opportunity for assessment to play an important role in maximising each individuals' potential. This was as opposed to the traditional single examination system which focused on the intensive development of the talents of a select minority and helped them to move up the educational and social ladder (Akplu, 1989). Thus, the impetus for introducing CA was that, it would help to get the best out of every student instead of getting the best out of a few and would as a result maximize the nation's human resource potential. (See Ghana Ministry of Education and Culture, 1987).

The assessment committee of the 1987 Education Reform Programme made two main recommendations regarding new assessment policy in this regard. These were that:

(i)   assessment should be carried out through a combination of national external examination and internal assessment by teachers;

(ii)   a percentage of the final certificate grade should be based on the teachers' internal CA marks, ie. 40% of the overall marks, while the remaining 60%, would be from

external examinations. (Ministry of Eduction and Culture, 1988).

The term "continuous assessment" (CA), was used by the committee to mean the everyday assignments, tests and examinations conducted by the classroom teacher. These assessments could be done weekly, monthly, or periodically but, essentially, they were to yield cumulative, systematic and comprehensive data on individual student performance over an academic period. Although the new assessment policy did not require teachers to follow a set of prescribed assessment tasks, suggestions were put forward as to what teachers could do for their CA work. However there were two fundamental issues that were not addressed by the work of the assessment committee:

(i)   How was the standard of CA work going to be monitored within and across schools to ensure fairness and good practice? In other words, what structures were to be put in place to ensure public confidence in the results of continuous assessment which contributed to certification?

(ii)   How was this CA to integrate with the everyday teaching and learning activity in the classroom as this was considered to be the context within which it was to operate?

These are important questions because for the first time in the country's educational system, CA was to play a critical and powerful role in the education and certification of students at the national level. The first question was important from the public acceptance and assurance point of view, while the second was important for the

implications it had for classroom teaching and learning.

Although the national conference on Teacher Education in 1986 had recommended the re-introduction of CA into initial teacher training it was not until 1990 that it was fully implemented. (There are four levels of entry into Teacher Education in Ghana, see Table 1 below. This study focuses on the first level which begins after secondary education, hence the name "post-secondary teacher training", PSTT). It appears that the motivation for the implementation of CA in post-secondary teacher training came after the launching of the Education Reforms in 1987 which had given CA more official recognition and status. Teacher education reformers saw the introduction of CA as a new opportunity to place more value on the professional and practical side of teacher training and so to raise training standards (Ghana, Ministry of Education, 1993; Institute of Education UCC, 1986).

Table 1. **Levels of entry into Teacher Education in Ghana**

Level	**Duration of Course**	**Entry Level**	**Certificate Awarded**	**Level of teachi after certification**
Post Secondary level	3 Years	Completion of Senior Secondary School	Post Secondary certificate 'A'	Primary and Junior Secondar schools
Higher Education (Non-graduate level	3 Years	Completion of Post-Secondary and having taught for 3 years	Diploma Certificate	Either post Secondary teach training, or Seni Secondary Scho
Higher Education (Undergraduate level)	3 Years or 2 Years for post-diploma B.Ed	Teachers holding diploma of education certificates, or Senior Secondary leaving certificate**	B.Ed degree	Either post secondary teach training or. Seni Secondary Scho

7

Higher Education (Postgraduate level)	1 Year	Holders of graduate degrees eg. BSc., BA	Post-Graduate Certificate in Education	Senior Seconda Schools or post secondary teach training college

** The entry qualification is higher than for the Post-Secondary level

1.1.2. The introduction of CA into Post-Secondary Teacher Training in Ghana: The Issues it raises for Research.

Ghana's new Education Reform Act, promulgated in 1987 had a marked effect on the curriculum and the assessment of post-secondary teacher training. Greater emphasis on practical and problem-solving learning approaches at school level provided grounds for similar reforms at the post-secondary teacher training level. For a start, the introduction of CA and changes to the curricula of Basic Education meant parallel changes in assessment and content of teacher education programmes. (The Basic Education level is made up of 6 years of primary education and 3 years of junior secondary school. As Table 1 shows the Basic Education level is the level of teaching for post-secondary teacher training graduates).

More specifically, the two targets of reform were, (a) the approach to teaching and learning which was criticised for being largely teacher-centred, emphasising lectures, dictation and recall of notes and (b) the assessment system which was criticised for being examination oriented (ODA/British Council JUSSTEP 1993). The reforms at the post-secondary teacher training level (PSTT) were spearheaded by the Junior Secondary School Teacher Education Project, JUSSTEP which emphasised student-centred, interactional teaching and learning approaches. New assessment approaches under

JuSSTEP reforms were intended to reflect this change by engaging students in activities or tasks that encourage problem-solving and investigative learning attitudes. The introduction of 'new' assessment procedures particularly student assignments and projects, were intended to provide opportunity for assessing curriculum objectives deemed to be important but *cannot* be assessed by traditional written examinations. (See Ghana Education Service, Teacher Education Division, 1992). Finally, the hope was that the excessive reliance on the traditional single examination which according to the critics had promoted a tradition of "*memorise, reproduce, pass and forget*" would be reduced because of the introduction of CA (Ghana, Ministry of Education, 1988).

Implicit in these expectations and plans is the assumption that introducing newer procedures in assessment and teaching and learning innovations will lead to improvements in training and raise standards generally. However, as some educational experts have observed, introducing new assessment forms does not necessarily enhance the curriculum and raise standards, instead the intended outcome depends ultimately upon "teacher perceptions of their purpose and understanding of their broader curricular intentions" (Torrance, 1995, p. 155). As the literature suggests, a missing element of many attempts to change educational practice such as the introduction of CA is the lack of understanding of how people most affected by the change interpret and respond to it in practice. (See Havelock & Huberman, 1977; Fullan, 1992). This is especially so, in systems where the innovation requires quite a considerable amount of change in the way teachers and students perceive and relate to newer approaches. As Fullan (1992) points out:

"Many innovations entail changes in some aspects of educational beliefs, teaching behaviour, use of materials and more. Whether or not people

develop meaning in relation to all three aspects is fundamentally the problem" (p. 41).

In other words, one needs to look beyond the physical objects of innovation such as: new curriculum materials or official guidelines on new assessment approaches for indications of achievement (Fullan, 1992; Parlett & Hamilton, 1987). Instead it is important to examine at a more subjective level the perceptions and meanings attached to the innovation and how that has informed or influenced practice. Fullan (1992) also makes the point that quite apart from the need for individual conceptual and behavioural change to accompany reform, it should be recognised that organisational changes are "often necessary to provide supportive or stimulating conditions to foster change in practice" (p. 41). This suggests that "ground conditions" are just as crucial as responsive change in practice by teachers.

Therefore it was important for research to explore training college tutors' (teacher trainers) perception and understanding of the CA scheme introduced into PSTT and how they practice it. As Darling-Hammond (1994) points out changing assessment forms and formats without changing the ways in which teachers use assessment as well will not change the outcomes of education. Thus it is necessary to examine whether there have been changes in the way tutors' view and use assessment because of the introduction of CA into PSTT. Furthermore, Darling-Hammond points out that the outcome of assessment reform depends on the decisions made about the nature of new methods, the ways in which they are used and, the companion efforts that accompany them to actually improve training. This suggests that change by itself, symbolised by new procedures and methods contained in official guidelines may not necessarily improve standards. Instead

the crucial issue is the way in which the change is perceived, translated into practise, and the conditions which guide their operation (Fullan, 1982). Thus in this research, I was interested in knowing the factors that were either inhibiting or promoting the effective use of CA in PSTT.

Another issue of interest was how the introduction of CA was affecting students. As Rowntree (1987) has noted, even though investigations carried out about the use of CA show that students welcome it, knowledge about how they use it and what it is doing for them still remains at the level of armchair rationalisation. Since introducing CA into PSTT in Ghana in 1990, there has not been any in-depth investigation of whether students were finding it useful in promoting their learning and professional development.

There is also the opposition of groups who see few real benefits emerging from the introduction of CA because of the lack of trust in teachers to operate fairly and consistently. For example, Akplu (1992) has observed that there are many in Ghana who are still sceptical about allowing teachers to be involved in the assessment process the way present policy stipulates. Their concern is that this could lead to a fall in educational standards because teachers are not sufficiently skilled or competent enough to assess students effectively and fairly. Despite such concern, there is very little knowledge in Ghana about how tutors in the training college use CA and whether their practices are fair, effective and correspond with policy stipulation.

The JuSSTEP reforms of PSTT in 1989 in Ghana, did not isolate the assessment system for reform leaving out pedagogical instruction. The reformers indicated that the pedagogical and assessment changes being introduced were interrelated and intended to impact on each other. Particularly, they emphasised that the effective implementation of

CA and ability to handle the reviewed syllabus depended upon the application of the new interactive training methodologies. Methods of assessment were intended to be linked to the pedagogical changes in order to enable tutors to further develop their approach to teaching (Ghana Education Service, Teacher Education Division, 1992). Thus, the policy of CA for PSTT in Ghana was developed in parallel with intended changes to instructional practice. Therefore the success of the changes to assessment practice depended to a large extent on the success of changes such as the use of student-centred, interactional approaches to teaching and learning. For example, assignments which formed the major part of CA marks were expected to reflect similar instructional change that places emphasis on self-directed or group-directed teaching and learning activity (Ghana Education Service, Teacher Education Division, 1992).

Thus, this research also set out to investigate whether instructional practices in the colleges followed the instructional innovations introduced by JuSSTEP and assessment practices took their cue from the instructional innovations and, if that were not happening, why?

Another research issue arising from the introduction of CA into PSTT in Ghana was the nature of the content of college tutors assessment tasks. The specific research interest was whether generally the assessment tasks' tutors set their students could be said to act as a catalyst for improving students professional learning and development or was just a reflection of the status quo. Awuku (1986), a professional teacher educator, writing in the context of anticipated teacher education reforms in Ghana, argued that for:

> "a teacher, to be knowledgeable and effective, he/(she) must have an opportunity to study in a programme which relates knowledge and

performance to his expected responsibilities, and which provides the teacher opportunity for learning subject matter in the context of its anticipated use" (Awuku, 1996, p. 20).

Thus, it could also be argued from this premise that assessments in use at the colleges if they are to have a more practical orientation should provide opportunity to promote and reflect practical professional learning experiences. The question that arises is to what extent was this happening in the PSTT colleges since the introduction of CA.

Finally, an issue that arises with the introduction of CA is the extent to which CA practices in the PSTT colleges reflect the official policy on CA. The interaction between policy and practice is a key issue in the educational change process and as Fullan (1982) has noted, often most policy change has concentrated on 'paper' changes. With the introduction of CA into PSTT in Ghana the issue was whether CA policy went beyond changes on paper and set up appropriate structures with potential to realize the objectives of policy. In this respect, this research does not rest on case study evidence alone but examines the issues that emerge in the translation of policy to practice.

1.1.3. Incorporating Assessment into the Structures of Teaching to improve the quality of Post-Secondary Teacher Training in Ghana.

One of the principal objectives of adopting CA in PSTT in Ghana was that through it more emphasis would be given to professional and practical aspects of training programmes. The JUSSTEP reformers pointed out that before the 1989 teacher education reforms, learning in the teacher training colleges had become heavily examination oriented and theoretical because all assessment was through examinations

13

(ODA/British Council, JUSSTEP 1993). That is, the formal written examinations had favoured the more academic and theoretical aspects of training and had led to tutors de-emphasising the practical and professional aspects. The reformers were pointing to the familiar case of examinations narrowing the curriculum by setting the agenda for what went on in classrooms as teaching and learning (Rowntree, 1989). The expectation with the introduction of CA was that tutors would be moved to integrate their assessments with the process of teaching and learning. In other words, the introduction of CA would provide the objective basis for positive backwash effect on teaching and learning with training college tutors incorporating assessment into the structures of their teaching plans.

The question of interest for this research was whether:

- PSTT college tutors possessed the competence and skills to manage the effective and efficient integration of assessment with instruction?

Wood (1987) has noted regrettably that: "the ways in which assessment can help teachers teach have never been properly laid out, and this as much as anything accounts for the resistance expressed by conventional wisdom that time spent on assessment is time not spent on teaching" (p. 262). With the introduction of CA into PSTT in Ghana no clear suggestions were outlined to guide college tutors about how they were to incorporate CA into their teaching plans and delivery. It might be assumed that integrating assessment into the structures of teaching is a straight forward matter and that tutors would easily shift to using assessment actively in the teaching process with the introduction of CA. However, it was intended by this research to provide evidence of whether integrating

14

assessment with teaching was occurring smoothly and effectively or tutors were simply treating assessment as a separate and detached activity from teaching.

It would appear that the 1989 PSTT reformers were well aware of the potential workload increase of new assessment requirements if they were perceived as separate and detached from the normal activity of teaching. This explains the emphasis in the guideline document for administering CA on the need for tutors to integrate their assessment work with normal teaching.

1.2   Research Questions for the Study

In the previous two sections, issues and questions were raised concerning the introduction of CA into PSTT in Ghana which this research sought to explore. These issues can be encapsulated into FIVE main research questions which serve as the organising questions for the empirical research. They were the following:

(1)   What problems have confronted the effective implementation of CA in PSTT colleges in Ghana?

(2)   How well do CA practices reflect the objectives of CA policy for teacher training and what accounts for any differences?

(3)   What factors contribute to the way in which CA policy for PSTT is interpreted and practised?

(4)   How adequate was the conceptualisation of CA policy for the teacher training context in Ghana and how did this affect its practice?

(5)   As a process of change what experiences and structures were required for the successful implementation of the CA scheme and how were these requirements being met?

Answers to the research questions were to be found through an investigation of the features of perceptions and beliefs about CA, the practices which constitute CA, the operating guideline document and the structures for supporting CA practice. Also, the research aimed to explore the problems that have emerged since the introduction of CA into PSTT and what steps were being taken by the teacher training establishment in Ghana to address them.

1.3   Significance of the Study

There are three main reasons why this study is significant. The first is that it will help improve policy on teacher education development in Ghana, especially in the area of assessment. Government plans are to upgrade the level and status of PSTT to produce a competent teaching force who are capable of promoting education and national development (Ghana Ministry of Education, 1993). However, without concrete information about what recent innovations are or are not achieving, further attempts to improve or change the educational system may prove unsuccessful. In the situation where there is lack of concrete evaluation evidence, reform will continue to be based purely on theoretical considerations and lack the informed backing of research as appears to have happened in the past. This research therefore aims to provide insights into how new education policy such as the introduction of CA has been implemented and draw lessons

16

for possible future assessment reform in teacher education in Ghana.

In the 70's Havelock and Huberman (1977) made the observation that there was a disappointing lack of in-depth case studies of innovations in developing countries that are useful for both researcher and practitioner. The situation appears to have changed very little in Ghanaian educational development where available evidence suggests that official evaluations often fail to feature textured accounts of what teachers and students feel about changes and what really happens in practice. Thus, this research purposely emphasizes the opinion and understandings of students and tutors who are most affected by the introduction of new policy. It attempts to examine practice at the local level and highlights the key issues that policy makers will probably need to pay particular attention to if they are to bridge the gap between policy and practice. Ultimately, such information will contribute to the body of knowledge building up about managing change in practice especially in a developing country such as Ghana.

The second reason for this research is that it will add to the scholarly research that is emerging about the implementation of CA schemes at both the international and national level. Internationally, the problems that face the introduction of CA into school systems have been studied and reported by many researchers (see, Hoste & Bloomfield, 1975; Nwakoby, 1987; Kellaghan & Greaney, 1992; Pennycuick, 1990; Ali & Akubue, 1987; Akwesi, 1994). All of these studies and reports have looked at CA at the primary or secondary levels of education. What has not received much attention is the nature of problems and challenges it faces in other contexts of education, such as teacher training. Thus, this study will provide another dimension of the problems and challenges CA faces in the teacher training context.

17

Since Ghana introduced CA into PSTT from 1990 no critical and extensive study has been carried out to explore the role it fulfils in training. As was pointed out earlier, its introduction into teacher training was expected to achieve specific things. For example it was expected that it would offer the opportunity to place value upon important professional skills and qualities necessary to be learnt and developed for effective teacher performance. For example tutors in Science would direct CA particularly towards those areas that the external examinations were weak at assessing such as practical and professional skills. In Mathematics the expectation of the policy on CA was that it would lead tutors to emphasize practical problem solving activity as an essential part of the learning and teaching of Mathematics. Despite these expectations, no in-depth study has yet been carried out to investigate whether the present framework for practising CA in the training colleges in Ghana is really promoting any of these objectives. What is more important, if it was not, what form a revision of the approach to CA should take to reflect and support the aims and objectives of teacher training. Thus, as far as these issues are concerned this study serves as a unique opportunity to provide insights into using CA in PSTT in Ghana.

A third reason for the significance of this study relates to how it will help to understand what needs to be done to ensure the quality of CA. One of the implications for introducing CA is that tutors have to take greater responsibility than ever before for the assessment of students on the basis of their work done in the colleges. This obviously raises questions about tutor expertise in assessment and the mechanisms for ensuring comparable standards across institutions. These may lead to a consideration of the issue of moderation. Elsewhere tutor-centred group moderation has been put forward as the

most appropriate approach to moderation since it can provide tutors the opportunity to develop further, their knowledge and skills of assessment (Broadfoot, 1994; Gipps, 1994a; Murphy, 1991; Radnor & Shaw, 1995). Also, tutor-centred group moderation has been noted to help improve uniformity of standards across institutions. However in Ghana, it is not clear how such a moderation exercise should be approached. It is important that before any human-intensive quality assurance system is introduced, a lot more is understood about the problems and challenges that face its practice in teacher training in Ghana. Research into the practice and management of CA in PSTT colleges in Ghana would therefore provide information about whether essential modifications should be made before applying group moderation. For example, it is important to know whether tutors use assessment criteria in assessing students work. If they did, to understand the nature of the criteria and whether such criteria have any commonalities across colleges. It is equally important to know whether the present policy and practice of CA are amenable to a group moderation approach, and if not, what has to change.

In summary, for Ghana, the study will have significance for assessment policy formulation and CA practice at the teacher training college level. It will also add to the growing body of research related to the implementation of CA in the educational systems of developing countries.

1.4   Structure Of The Thesis

The thesis is made up of seven chapters which have been logically arranged to provide insights into the issues raised by the research and to provide answers to the research questions. It is structured under two main parts: the first part consists of

Chapters 1, 2, 3 and 4 while the second part consists of Chapters 5, 6 and 7. The focus of the chapters is:

Chapter 1:   This chapter provides the background and the task of the research. It sets out in detail the issues that the study sought to explore as a result of the introduction of CA into Ghana's teacher training colleges. It also presents the questions posed to guide the research and for which answers were sought. The chapter also outlines the importance of the study for the larger body of research on CA, for future policy considerations and for helping to improve CA practice. The last section explains the layout of the thesis, the aim of which was to provide a quick summary of its structure and components.

Chapter 2:   This chapter is divided into three main sections. The first section provides a panoramic view of the history of assessment development in Ghana from colonial times, with a particular focus on the factors which contributed to the culture of examinations. This section also describes the attempt to incorporate CA into the Middle School level of education in Ghana and analyses the factors that may have accounted for it being unsuccessful. The second section traces specifically the history of assessment development in initial teacher training, now PSTT, up to the time of the educational reforms of 1987. It examines some of the early attempts made to reform teacher training and its assessment system and analyses the

factors that contributed to the lack of success. The final section examines the characteristics of the latest innovations in assessment and instruction at PSTT in Ghana.

Chapter 3:   This chapter is one of the two literature review chapters, the other being Chapter 4. The chapter is devoted to a general review of the literature on issues relating to CA, its conceptualisation, philosophy, effects, and finally some studies about the implementation of CA in developing countries. Since the thesis is about CA in the context of teacher training, it is important to draw on the arguments in the literature on assessment and relate it to that context. Thus, the chapter also focuses on issues that relate directly to teacher training assessment, critically analysing them and making inferences that are relevant to this study. Particular emphasis is placed on the theoretical arguments underlying certain approaches to assessment and their implications for the teacher training context in Ghana. The final part of this chapter examines some technical issues about assessment, drawing on the key issues for their implication in the teacher training context. An important aspect of the discussion in this part is the questions and issues that arise for Ghana.

Chapter 4:   One of the advantages attributed to CA is its potential as a tool for formative assessment. As the literature about CA reveals this is central to its philosophy. Therefore, this chapter examines issues that relate to this

function of assessment and discusses the tension and relationship between formative and summative assessment. The philosophical discussions raised regarding the debates concerning formative assessment and how it can help to improve learning and performance is also examined. The discussions draw on the relevant issues of this debate and examine their implication for teacher training. The second part of the chapter is the discussion on profile assessment and its potential to perform a variety of formative and summative functions. Also, discussed are the issues presented in the literature about profiling in teacher education and some implications for practice in Ghana.

Chapter 5:   This chapter discusses the research methodology for the study. It is made up of two main parts. The first part presents a detailed overview of the methodology employed and the rationale underpinning it. It particularly examines some of the philosophical issues regarding the qualitative method and the underpinning philosophy of the research approach of this study. The second part discusses the specific methods employed in the collection and analysis of the case study data from both theoretical and practical perspectives. This part is very detailed to give a comprehensive picture of how data was collected and analysed. It also discusses the challenges and problems faced in the research process and how these were dealt with.

Chapter 6:   This chapter presents a comprehensive report of the substantive fieldwork

evidence leading to the findings. The reported findings are based upon the

analysis of the data across the three case study colleges. (A profile of each

college is presented in Appendix 1). The chapter is lengthy and contains

extensive use of verbatim quotations to illustrate the perspectives of the

participants in the research and is in keeping with the traditions of

reporting qualitative case study evidence. It must be pointed out that the

analysis, although firmly grounded in the case study evidence sometimes

extends beyond this to take account of the appropriate issues raised in the

literature discussion in Chapters 3 and 4. For example, threats to the valid

use of CA results are discussed in relation to the content analysis of case

study tutors' assessments as well as issues raised in the literature

discussion about threats to the valid use of assessment data. This was

considered an important part of the analysis as it helped to sharpen the

discussion and raise the significance of the issues that emerged from the

research.

Chapter 7:   In Chapter 7, I draw together the outcome of the research guided by the

key questions of the research and discuss various implications relating to

the findings. Wider implications of the findings which relate to the issue

of changing practice in educational settings as associated with the

implementation of the CA scheme are also discussed. Similarly,

implication for assessment policy review in PSTT in Ghana is considered

and general recommendations suggested for improving the training and assessment of students in teacher training. In addition, the issues unearthed for possible future research are presented and reflections on the research are made pointing out the strengths and the limitations of the research, as well as the challenges faced doing qualitative research.

HISTORICAL PERSPECTIVE OF ASSESSMENT DEVELOPMENTS IN INITIAL TEACHER TRAINING IN GHANA

2.1. Introduction

This Chapter presents a historical perspective of assessment development in teacher training in Ghana. To put this development into context, it is important to provide an overview of the wider picture of assessment development in Ghana from the colonial period. Ghana's educational system like that of many developing countries has been plagued by a culture of examinations, with its attendant problems. So an overview of some of the factors that have accounted for this culture, together with attempts at changing it is discussed. This forms the first part of the chapter.

Teacher training was one of the areas in the evolving education system which was influenced by the emerging examination culture. The way in which this happened and the efforts that were made to effect a desirable change is the subject of the second part of the chapter. This provides the contextual background information for the discussion on recent assessment arrangements as they operate within the framework of new assessment policy for teacher training.

The second part also examines the current rationale for introducing CA into PSTT and the specific arrangements for operating and managing it. Closely linked to the introduction of CA in teacher training in Ghana were innovations in teaching and learning approaches. Thus, the last subsection of the second part discusses the nature of these

innovations and their importance to the new assessment approaches under the current CA system.

2.2   Educational Assessment and its reform: The Ghanaian Experience

2.2.1   Introduction

The current use of CA in Ghana's educational system is neither new or accidental. In Ghana's educational development some attempts were made to incorporate school-based assessments to either augment examinations or replace them. However, none of these appeared to have met with any particular success and examinations remained the cornerstone and focus of educational experience. Examinations had come to symbolise a means to an end, the end being economic and social mobility for an individual. This became in a sense the 'hidden' agenda for schooling with the whole educational experience of students, including that of teacher training, focused on examinations (Akplu, 1989).

Though the nature of developing formal education in Ghana, often described as 'bookish', was recognised as contributing to an undesirable examination culture and affecting the quality of teaching and learning, the attempts at reforming it appeared superficial. The thrust of very early educational reform and what followed subsequently was on improving access and equity (see McWilliam & Kwamena-Poh, 1975). As Omolewa (1982) points out referring to similar early educational reform in Nigeria, educational development should have placed as much emphasis on ensuring curriculum practices that will value and place meaning on the experience of education. However, often curriculum issues including assessment were relegated to the background. Foster (1965) for example, notes that proposed extensions of educational provision during early

26

educational development in Ghana were not parallelled by any immediate proposals to radically restructure the curriculum. Where curriculum innovation or change was attempted, it tended to be influenced by the entrance requirements of institutions further up in the educational hierarchy. Since moving up the educational ladder depended on passing examinations, the effect of this was to be a further entrenchment of examinations as the focus of teaching and learning.

The introduction of the Education Reform Programme (ERP) in 1987 could be described as the first significant attempt to place the curriculum at the heart of education reform. Curriculum innovation which included the introduction of CA extended to all spheres of the education system, including initial teacher training.

Before discussing the influence of the New Education Policy of 1987 on ITT, notably the introduction of CA, it is necessary to examine certain factors within early education development which had contributed to the culture of examinations.

2.2.2 Early Factors Promoting a Culture of Examinations

The establishment of the 'Castle Schools' in Ghana (then Gold Coast) in the 17th century began the experience of formal education. These schools which were situated in the castles along the coast, hence the name 'castle schools', were the result of efforts by the Portuguese, Dutch and Danish to educate locals for the purpose of trade, commerce and expansion of the Christian Religion (see McWilliam & Kwamena-Poh, 1975).

However, as early as 1844 the British Colonial Administration began building the educational system that became the foundation of the present one. The growth of the education system was closely affected by the system in Britain and quite early in this

evolving system the school curriculum had adopted the British system of monitoring instruction. The core of the curriculum consisted of, reading, writing and religious instruction, supplemented by arithmetic for the more advanced pupils. Learning was mainly by rote with pupils chanting a chorus of half-understood statements. It was not long before this tradition attracted criticism. As Foster (1965) points out a select committee appointed to study the feasibility of continuing British Administration during the colonial period frowned against this practice.

> "There is too much time employed in the schools in the mere exercise of memory, too much of a mere teaching of words, and neglect of the knowledge of things, and too little employment of the faculty of thinking ..." (Foster, 1965, p. 53)

Early experiences of education were manifestly academic in nature and quite often detached from the experience of what could be described as meaningful learning. Coupled with this situation were the practices of job recruitment and selection which was becoming increasingly necessary with the expanding activities of colonial rule (Ghana Ministry of Education 1993). In practice those with certificates, especially the primary school certificate (established 1906), stood a better chance of getting, 'white collar' employment. Parents therefore sent their children to school to maximise their opportunities with the emergent occupational and prestige structure created by colonial rule. As Omolewa (1982) points out, "Education for the certificate" via examinations had in the early years of colonial rule in West Africa began to play a vital social and economic function.

The Education Ordinance of 1887 which led to the introduction of the practice of "Payment by Results" was to have further influence on focusing the curriculum in the

schools onto the requirements of examinations. Expanding primary education caused the number of pupils to outstrip the supply of well-trained teachers and led the Government to institute the policy of payment by results in order to legitimise expenditure on primary schools. By this system, the amount of a school's grant depended on how many pupils passed the annual examinations, conducted by the appointed Inspector of Education. A grant of 2 shillings per pupil per year was paid for each pass in arithmetic, reading and writing with varying grants given on average attendance. This was unfair to teachers because it implied that the failure of students was automatically the fault of the school. As McWilliam and Kwamena-Poh (1975) point out this practice was to have the effect of enforcing rote-learning making fear, the main incentive for learning. They described the practice as,

> " .... a mechanical method of ensuring that children, like blotting paper, absorbed a number of facts, and thus the country was getting, in theory, an adequate return for the money it was paying teachers" (McWilliam & Kwamena-Poh, 1975 p. 41).

These examinations were brief and gave no time to see if answers were understood. Teachers felt compelled to 'coach' their pupils to pass them so creativity in teaching and learning was stifled. "Payment by Results" was discontinued in 1909 with a new set of Education Rules designed to improve teaching and allow teachers more freedom in teaching. Nevertheless, this did not kill "parrot-learning" as McWilliam & Kwamena-Poh (1975) point out. The "Payment by Results" system had already given prominence to examinations and entrenched the value of examinations in colonial education in the Gold Coast (now Ghana). It left a deep impression on the style of teaching and learning within

primary schooling right from its development (Foster, 1965).

Another growing influence on the examination culture was to come from the emerging elite group of educated Ghanaians who had part or all their formal education in England. The form of education they had experienced and the qualifications they had earned through taking overseas examinations (eg, Oxford and Cambridge Examination Boards) became the aspiration of many who did not have the chance of studying abroad. Education particularly secondary education was aimed at preparing students for sitting these overseas examinations. With the growing number of secondary schools and other professional institutions it was felt necessary to establish a regional examination body, the West African Examination Council (WAEC) in 1952. It regulated and set examinations for various professional and academic bodies including the Teacher's Entrance and Certificate Examinations (McWilliam & Kwamena-Poh, 1975).

With the establishment of WAEC, examinations had become part and parcel of all aspects of education and training in the country. Teaching focused on the examination syllabus and the legitimisation of education and training via external examinations had become a publicly endorsed concept.

The next stage of education after the six years of the Basic Primary Course was the Four-Year Middle School Course. (See Appendix 2 for a description of the old educational system). It was at this level that a first attempt at introducing CA at the school level was made and forms the subject of discussion for the next section.

2.2.3 Introduction of Continuous Assessment: The Middle School Experiment

Middle schools replaced the earlier 4-year senior primary which followed six years junior primary and by this was abolished the examinations leading to the senior primary leaving certificate. Middle schools became channels of entry for students (a small minority at the second or third year stage) seeking to enter secondary schools via a common entrance examination. They also provided terminal courses for the majority of students studying technical and vocational education and students wanting to enter teacher training or technical institutions. (See, Appendix 2). Thus, the middle schools were faced with the double duty of teaching the small minority of secondary scholars who would leave them after two or three years and the large majority of those who would complete the four-year course and take the Middle School Leaving Certificate (MSLC) Examination.

In 1953, MSLC examination was replaced with internal assessment by teachers on a CA basis and certificates were awarded by the Ministry of Education based on CA results. The change to the internal assessment arrangement was intended to allow for a wider coverage of the curriculum content of technical and vocational education until then narrowed by the requirements of the MSLC examinations.

This arrangement was however short-lived as it failed to gain recognition by parents, employers and politicians. Public and employer demand was for the legitimisation of education via examinations because CA was considered not rigorous enough and that this was an attempt by government to devalue the MSLC and make it less marketable. This led back to re-introduction of the MSLC examination conducted by the WAEC. The certificate obtained through an external examination was considered to be more legitimate than an internally unmonitored teacher assessment system. People felt the MSLC via

examinations had a better market value than that through CA. Apparently, the employment value of the MSLC via external examinations had outweighed the argument that internal teacher assessment arrangement was better for practical and professional reasons. Thus the social legitimacy and further educational opportunities provided by examinations had crippled the first major attempt to introduce CA into the schooling system.

It could be argued that a further two reasons explain why the introduction of CA at the middle school proved unsuccessful.

First, the double duty of teaching students who were to take the entrance examination for the academic secondary schools which were highly competitive and simultaneously, teaching students within a terminal curriculum context created conflicts and tensions. This inevitably undermined the use of CA in the terminal curriculum case. Students and teachers alike were more concerned with the common entrance examinations which determined which students would qualify for the more sought after academic secondary education. It is obvious now that the role of CA was not properly conceptualised especially within the framework of the existing examination system. Perhaps a model based on a co-existence of internal and external assessment arrangements would have gained more public acceptance, at the time. Under the current arrangements for CA at the Basic Education level in Ghana, though there is co-existence of CA with examinations, the lack of a system for monitoring CA practices still creates worries about its value. This brings to the fore the next issue about why the introduction of CA into the middle school system proved unsuccessful.

The absence of supporting structures for its practice, such as moderation to

address issues about reliability and validity contributed to the lack of trust by the public in the certificates issued. There was no system of "checks and balances" to provide assurances to employers and the public who were already sceptical, and rightly so, about the validity and reliability of CA. Therefore it could be argued that the introduction of CA into the Middle School system was headed for failure because it basically lacked proper conceptualisation regarding its operation for fairness and credibility. Instead of the educational establishment addressing the concerns expressed about its credibility by setting up structures that would satisfy technical criteria of reliability and validity, it was simply dumped after mounting opposition. Also, there was no attempt to train middle school teachers in the skills and management of CA. Akplu (1992) reflecting on the introduction of CA into the middle school system and urging, a different attitude to the current use of CA in schools and colleges in Ghana argued that:

> "We would have perfected the practice by now if our predecessors had adopted a positive attitude toward the problems that emerged at the time of (its) introduction in the early 1950's" (Akplu 1992, p. 11)

However, under the present system of CA for schools and colleges in Ghana there are still no structures put in place such as moderation, to enhance quality in CA and promote public acceptance of it. For example, although teachers conduct CA which carries 40% of the overall marks, no partnership arrangements between schools and the external examination body (WAEC), have been forged to monitor and moderate CA to ensure comparability of practices and results within and across schools.

In summary, not much seems to have been learnt from the middle school experiment with CA by the 1987 educational reformers in Ghana. Management support

and training activities are needed for teachers and schools to consolidate CA in the educational system to forestall the possibility of regressing to the single examination system, as happened with the middle school system.

In the next section I examine how assessment systems developed in early initial teacher training within the flourishing culture of examinations that emerged with the development of education from the colonial era.

2.3 A Brief History of the Development of Assessment in Initial Teacher Training in Ghana

The introduction of teacher training in Ghana can be attributed to the work of early missionary organisations. These missions had recognised the need to train teachers for the schools they were establishing very early in their work. It was the Basel Missionary Society which began the formal training of teachers. The Basel Mission was mainly a German Society with its headquarters at Basel in Switzerland. They set up two teacher training colleges, one for young men in 1843 followed by one for young women. By 1880, the Basel Mission had established forty-five schools with 1200 pupils. The brighter pupils from these schools entered their colleges where they undertook a two-year course in teacher training leading to a career in teaching (see McWilliam & Kwamina-Poh, 1975).

Much of this was to change after the enactment of the Education Ordinance of 1887 which brought in the system of "payment by results". The Board of Education constituted as a result of the Ordinance stipulated that for mission schools to qualify for assistance, apart from the satisfactory performance of their students in the Inspectors'

examinations, their teachers had to hold the Board's certificate by examination. Grants for schools were to be determined in part by the number of teachers who held the Board's certificate.

By 1909 the government had also established its own training institution, Accra Training College, whose students were also required to take these examinations. Understandably, because of the policy to link government financial assistance to schools with the number of the schools' staff who hold the Board of Educations' certificate by examinations, examinations emerged as the central focus of training for the colleges.

According to McWilliam & Kwamina-Poh (1975), the Education Department soon realised the narrowing effect its examinations were having on the curriculum of the colleges. To remedy the situation they proposed that the colleges, at this time numbering three, were to conduct their own assessments of students on a CA basis with the Education Department issuing certificates after completion. The aim was to allow for more freedom in teaching and learning in order to meet the goals of teacher education. One of the reasons put forward for introducing internal assessments in replacement of external examinations was that the three training colleges were staffed with well-qualified tutors. The assumption was therefore that they were competent to assess their students reliably.

There are two interesting points which can be noted from this move to introduce internal assessments in the training college system. First, the recognition of the Education Department that its examination policy was having some negative effect on what went on in the colleges as far as curriculum coverage was concerned. This appears often to be the drive to introduce CA into school systems (Lewin, 1993; Ali & Akubue, 1988). Secondly,

what is more important, the confidence to make the move to CA because of the assumption that tutors teaching in the colleges were competent enough to handle the use of CA. However, what is not clear is the background training of these college tutors, whether they were given some special training in assessment techniques. Nevertheless the need to ensure that the teacher training curriculum was not narrowed by the reliance on formal external examinations and confidence that training college staff were competent to carry out assessment engendered the move to CA.

The practice of CA which began in 1927 flourished until 1957 when with the continued expansion of education institutions under the "Accelerated Development Plan (ADP)" of 1951, questions began to surface about uniform and satisfactory standards through the country. (see, McWilliam & Kwamena-Poh, 1975). The 1951 ADP for education led to the creation of more teacher training institutions to match the expansions in the primary sector. Concern began to be expressed about the standards in the growing number of teacher training institutions. The internal CA arrangements which posed no problems for a few training colleges had suddenly become unacceptable with the expansion of initial teacher training. Questions about comparable standards were raised by the public. Because of these concerns, the then Minister of Education, Mr C. T. Nylander informed Parliament of the need for guidance concerning certification and control if standards in teacher training colleges were not to deteriorate. Perhaps, at this stage if the needed guidance and quality control had come through moderation measures and in-service training the system might have been preserved and improved. However as a result of the emerging concerns, a National Teacher Training Council (NTTC) was formed to look at ways in which to ensure that high standards in teacher training were

maintained. The NTTC recommended that common examinations should be conducted by the WAEC for entrance and final certification for certain subjects. The training colleges were to conduct their own internal assessments for the remaining subjects (McWilliam & Kwamina-Poh, 1975).

The WAEC conducted common final external examinations in five subjects. These were Education, English Language, Mathematics, Geography and History. The colleges conducted internal assessments in General Science, Agricultural Science, Arts and Crafts, Music, Physical Education, Civics, Ghanaian Languages and Religious Studies. Not surprisingly, the more practical oriented subjects were the ones assessed internally by tutors. In the current educational system, the need to assess practical work in the form of personal studies or projects has been given as one of the reasons why CA has been introduced (Ghana Ministry of Education, 1987). Clearly the idea of introducing CA into current teacher training in Ghana because of its advantage in allowing the assessment of the more practical side of the curriculum is not new. A similar reason for the introduction of CA into PSTT colleges was given by the 1989 teacher training reformers.

Although training colleges at the time had some responsibility towards the assessment of their students the results of these assessments were not used for certification. It was only the external examination results which counted towards certification, therefore the effect of this assessment arrangement was predictable. External examination subjects became the focus of instruction since decisions leading up to certification were based solely on them. Questions set by the WAEC examination for teacher training was noted in a national teacher education report to have very little relevance to the work of teaching in primary schools (Commonwealth Secretariat, 1973).

Tutors were noted to be focusing on the examination syllabus which meant that professional attributes and skills of training which were difficult to assess via examination were receiving little attention.

There was growing concern about this development and calls for appropriate action to correct the non-professional tendencies developing in teacher training due to the backwash effect of the examinations. By the beginning of the 1970s, the number of external examination subjects had been reduced to three. These were Education, English Language and Mathematics. The rest were examined internally with emphasis on methodology and current approaches to the development of learning. It has to be pointed out that the 1970s was the period in which there was increasing recognition of new trends in teaching and learning which called for more student-initiated work. This was argued to be a good reason for introducing more subjects to be assessed internally.

Quite predictably, the reduction in the number of subjects examined externally did not solve the problem of the backwash effect of external examinations on teaching and learning. Decisions leading to certification still rested entirely on performance in the three examination subjects and therefore the examinations continued to have the effect of directing the focus of instruction and students learning attitudes. What the reformers seem to have failed to recognise was that decoupling the assessment system into an external and internal component was not the solution to the backwash effect on the curriculum. As the evidence in this thesis will illustrate, the basis for the backwash effect on the curriculum comes essentially from the high-stakes value students and teachers attach to the external examination. Kellaghan and Greaney (1992) have also noted a similar effect of examinations on the curriculum of schools in other African countries.

Another factor was that the internal assessment component of the training college assessment system in the 1970s did not count towards certification. This was something which was corrected by the New Education Reforms of 1987. Whether this has made much of a difference is one of the tasks this research sought to examine.

Further recommendations were advanced by the 1970 reformers of ITT to "correct the attitude of students to the subjects taken internally" (Commonwealth Secretariat: Ghana Report, 1973). They recommended that overall assessment of Teacher Training should be composed of a weighting breakdown of 40% on external examination, 40% on the internal and 20% on an elective subject. However, this recommendation was never implemented.

The New Education Reform Programme (ERP) of 1987 brought a further focus on a national level to using CA as part of final assessment of students. This was to give teacher training an added boost in its drive to place more emphasis on the internally assessed subjects. The next section discusses this in detail.

2.4 Introduction of CA into Post-Secondary Teacher Training: Features of the Current System

The introduction of CA into PSTT was initiated as part of the reforms in Education for two reasons. First, it had been introduced at the Basic Education level and since student teachers in training were eventually going to teach at this level it was felt that they needed exposure to its practice. Secondly, teaching and learning innovations being introduced into teacher training required trainees to spend a good deal of time engaged in learning situations that would enable them acquire desirable professional skills.

It was thought that college-focused CA was in the best position to assess students engaged in professional learning situations and the outcomes.

As it was pointed out in Chapter 1, a national conference on teacher education organised by the Institute of Education University of Cape Coast in 1986 put the issue of CA back on the teacher training agenda. This time it was recommended that CA results should be included in the decision process leading to final certification. 40% of the final marks was to come from CA with the remaining 60% from the Institute of Education final examinations. The recommendation was not acted upon until 1990 when with the support of JUSSTEP the Institute of Education began to combine CA marks with external examination marks to reach decisions about certification. Initially, no guidelines for administering CA in the colleges (numbering 38) were introduced. Later in 1992, guidelines were designed and introduced as part of the JuSSTEP innovations. The guidelines specified the number of assessments and examples of learning tasks and activities upon which students were to be assessed. Also, CA was to perform a formative function.

(a)   "By making assessment part of the learning process, continuous assessment ...... enables students to learn from the evaluation and change. It is therefore oriented to the development of the individual.

(b)   It (CA) should provide continuous feedback to the student and the teachers for corrective action to be taken towards improvement of performance."

(Ghana Education Service/Teacher Education Division 1992, p. 3)

The guidelines stated that CA should incorporate with normal teaching and learning activity and a profile of students' abilities, efforts and achievement should be the

result of CA. To facilitate its smooth operation a management support structure was set up consisting of Heads of Department, tutors, Vice-Principals and newly appointed Assessment Officers, each of whom had specific responsibility towards its implementation. (See Appendix 3). Such innovations marked a significant departure from previous attempts at introducing CA into any level of Ghana's education system. Thus, the 1990s saw a different attitude and approach to the practice of CA in teacher training in Ghana. The characteristics of the changes to the assessment system which took place in the 1990's are contrasted with the 1980's and summarised in Table 2 below. However, its implementation encountered some practical problems (ODA/British Council, JUSTTEP, 1993).

2.4.1. Some early problems with the introduction of CA in Post-Secondary Teacher Training

JUSTTEP conducted a study to evaluate the impact of its innovations in PSTT in 1993 and among the issues it reported on was CA. The JUSTTEP study was conducted in twelve teacher training colleges, lasting eleven days with an average of two days spent in each college. It is important to point out that observations about the implementation of CA in the training colleges was not the focus of the JuSSTEP study. Observations about CA were made in the context of other indications of impact related to the overall JuSSTEP inputs such as teaching/learning materials, equipment, books and in-service training. Thus, the focus of the study was not on CA *per se* which meant that the findings about CA were limited in depth and scope. Also, the framework of the study did not allow for the inspection of assignments or did it involve in-depth interviews and

Table 2: **Summary of the changes identified in assessment practice in the 1980's and 1990's**

FEATURE	ASSESSMENT IN THE 1980s		ASSESSMENT IN THE 1990s	
	INTERNAL	EXTERNAL	INTERNAL	EXTERNAL
Subjects assessed	Mathematics, Education, Ghanaian Language, English, Physical Education, Social & Cultural Studies, Agricultural Science, Science, and Art	Mathematics, English, Education	Mathematics, Science, English, Education, Social & Cultural Studies, Physical Education, Ghanaian Language, Vocational Skills, and Life Skills	Mathematics, Science, Technical Skill, Education, English and Vocational Skills.
Mode of assessment	Written examinations set in colleges, informal CA	Written examinations set by the Institute of Education, UCC	Formal CA: tests, quizzes, assignments, projects and term exams.	Written examinations set by the Institute of Education, UCC
Frequency of assessment	Not more than 6 examinations; frequency of CA depended entirely on individual tutor.	End of the 3-year course	Specific number of assessments stipulated in the guidelines document. Tutors chose to assess when appropriate.	Core subjects assessed at the end of the second year; Optional subjects assessed at the end of the third year.
Nature of assessment records keeping procedures	Each college used own records keeping procedures	Not applicable	Common system for conducting CA; common record keeping procedures	Not applicable
Proportion of the assessment used to reach final certification	Nil	100%	40%	60%

42

observations of classroom teaching. All the data was gathered through questionnaire and structured interviews. As Hargreaves (1988) points out, "... what people write 'in the cold' as a response to a brief item on a questionnaire, is often a poor document of their everyday working perspectives" (p. 111). Thus, the *full* picture of what was happening in the colleges as far as CA was concerned may not have been gained. In contrast to the JUSSTEP evaluation, this researches case study evaluation involved detailed situational analysis of the views and experiences of tutors and students about CA practice. Nevertheless, the JUSSTEP study came out with some interesting findings worth pointing out. Some of the general findings regarding CA were the following:

- Though the CA system was considered satisfactory, some tutors noted that it was tedious and time-consuming and inhibited effective teaching and learning.

- The study also indicated that "CA was not being rigorously implemented" noting that 31% of students stated they were regularly set assignments, with 59% stating sometimes and 10% rarely.

- The management organisational structure set up to manage CA was also not functioning properly in some institutions.

Another dimension of the JUSSTEP study of interest to this research was the findings about the innovations to teaching and learning. The central thrust of the JUSSTEP reform was to up-grade the professional competence of tutors and to disseminate ideas on appropriate teaching methodology. The strategy used to achieve this was to introduce student-centred interactive models of teaching and the reformers

targeted five subject areas: Mathematics, Science, English, Technical Skills and Education. Over a period of four years (1989-1993), JuSSTEP activities involved the development of teaching and learning aids and INSET workshops, some of which addressed issues about the practice of CA. The following represents a summary of some of the JuSSTEP findings related to teaching and learning innovations in Mathematics and Science:

- There was evidence to show that tutors were all aware of the 'new' student-centred approaches;

- These were being used regularly in 6 out of 10 Science and Mathematics departments. The other Science and Mathematics departments used them, though occasionally. (No specific reasons were offered for this).

- 41% of Mathematics students and 33% of Science students said their tutors used activity-based teaching and learning approaches.

One of the important findings of the study related to the question of whether students had noticed any difference between approaches to teaching in secondary school and teacher training. 94% said they had noted a considerable change in teaching methodologies. Against the 1970 teacher education reformers concern about the predominant academic secondary school style of teaching in teacher training, this represented an encouraging step forward. These findings suggest that some impact had been made by the JUSSTEP innovations, although the authors also pointed out that its overall impact had been limited by certain major structural constraints.

However, what was not clear from the JUSSTEP Impact study report was exactly

how CA was being practised. The following issues were not investigated by the JUSSTEP study:

- What kind of relationship existed between CA and the teaching and learning processes, why did tutors' feel it inhibited effective teaching and learning?
- Also it was not clear from the report whether the current CA scheme was doing much more than helping to categorise prospective teachers into 'pass' and 'fail' groups. Was it serving a useful formative purpose as well and if not, why?
- Did the present CA scheme need restructuring to fulfill the purposes for which it had been introduced?

These are questions among others this research sought to explore and provide some answers.

2.5   Summary

This chapter has surveyed the main developments in assessment at initial teacher training in Ghana, from the colonial era until the 1987 Education Reform Programme. Before that, it analysed some of the factors that had contributed to the legacy of assessment practice in teacher training in Ghana, today. It also examined the attempts to make teacher training assessment more professionally relevant by increasing the number of internally assessed subjects and suggested reasons why they were unsuccessful. The chapter also looked at the characteristics of current change in assessment arrangements in post-secondary teacher training (PSTT). Finally findings from the JuSSTEP impact

study concerning CA and teaching and learning was reviewed to set into context what this research expected to achieve.

It is reasonable to conclude from the discussions in this chapter that the most concerted effort to make CA an important part of teacher training in Ghana, was made with the introduction of the Education Reform Programme in 1987. However, it is important to understand much more clearly what has happened in terms of the practice of CA and the role it is fulfilling in the teacher training colleges. I believe that this research would contribute towards a better understanding of the kind of challenges and problems facing the use of CA in teacher training in Ghana.

In the next chapter, the literature concerning CA and related issues is examined.

CHAPTER 3

CONTINUOUS ASSESSMENT

3.1   Introduction

The purpose of this chapter is to review issues in the assessment literature concerning CA. The first part of the chapter examines the general philosophy and principles of practice of CA. Since the focus of this study is on CA practices in teacher training it is important to examine the assessment literature for issues relevant to that context. This forms the second part of the chapter. Of particular interest in this second part are the following issues: the role of traditional testing approaches in teacher training assessment, validity and reliability considerations in the use of CA procedures for the teacher training context and issues about the moderation of teacher assessments. The chapter concludes with a look at some effects of CA and problems encountered in the implementation of CA schemes in developing countries, including the case study country, Ghana.

3.1.1   Meaning of Continuous Assessment

"Continuous assessment" (CA) as a term of assessment has often been used variously to mean different things. Nitko (1996) points out that these different meanings can lead to confusion and problems when it comes to implementing it, especially as part of a national assessment system. Therefore, it is expedient to examine the various meanings attached to the term CA and what it stands for in this thesis.

The essential question is, what is the underlying philosophy of the phenomena of CA? One Regional Examination Board in Britain described it in three different ways each reflecting a different perspective:

"(a)   It represents continuing awareness, by the teacher, of the development and knowledge of his/her pupils; it is a process which extends over a period of time: the gradual build-up of a cumulative judgement about performance;

(b)   A teacher making use of continuous assessment is looking for signs which show the growth of thinking processes and the development of those varying abilities towards which the teaching is aimed; he/she is more concerned with signposts than with the whole itinerary.

(c)   An end of course examination will test achievement at one point of time within the limits of the test; under continuous assessment there is knowledge not only of this achievement but also of progression towards it; not merely of where he has got to but also of how he got there."
(West Yorkshire and Lindsey Regional Examination Board, quoted in Rogers 1974, p. 167).

In another set of descriptions of the term, the Assessment Committee set up at the inception of CA in Ghana explained it thus;

(a)   "Continuous assessment may be considered as a formative evaluation procedure concerned with finding out in a systematic manner, the level of mastery that a student has attained in knowledge, skills and attitudes after a given set of learning experiences.

(b) The procedure is capable of diagnosing weaknesses and strengths in the student's learning so that the teacher can give effective remedial tuition to students to enable them overcome their learning difficulties.

(c) It is a method whereby the final assessment and classification of students take into consideration their cumulative performance over a given period of teaching and learning." (Ghana Ministry of Education, 1988, p. 8).

From these descriptions of the term CA, one could conclude that CA is *primarily* a formative evaluative process which enables teachers to develop insights into learning progress or obstacles. Second, it is perceived as a process of assessment which enables judgement about a student's final achievement to reflect a cumulative total of performance over a course of study. Finally, CA is considered to be an assessment process that can provide concrete evidence of students' efforts, progress and achievements and thus show *how* the student has developed. Such descriptions also suggest that it is a term with broad meaning and therefore quite open to different interpretations and formats for its operation. The remainder of the section explores in more detail the different facets of the notion of CA.

3.1.2 Different Concepts of "Continuous Assessment"

Rogers (1974) points out that CA is simply a means of gaining more and better information about the student and using it as the course develops. He places emphasis on the *information gathering role* of CA and stresses that the various assessment methods it employs are merely tools that provide the relevant information the teacher or student requires to improve learning. Rogers (1974) likens the information gathering role of CA

and the difficulties of managing it effectively to that of a missile. The missile's course is constantly modified in accordance with the feedback it provides itself for those controlling it. Likewise, Macintosh (1976) points out the similarity of CA to a flexible teaching programme which is modified as it goes along as a result of data received from student and teacher. In a similar interpretation, Harlen (1976) points out that the characteristics of information gathering under CA are that "it is on-going, cumulative, diagnostic and focused on the student's development and progress" (p. 82). Furthermore she points out that the clue to the development of student learning is not based in a few tasks specially selected for testing. They can be derived from the teachers' observations made during normal learning activities. However, Harlen acknowledges that teachers' observations do not constitute a method of assessment, arguing that to do so will require a structure for focusing observations and interpreting them.

Some writers are of the view that, as a by-product, teachers informal CA invariably contributes to decisions leading to the award of grades or marks to students. However, Nitko (1996) argues that when the result from CA becomes linked with evaluating individuals for purposes of certification or selection, then CA should become more associated with structured and more deliberate assessment procedures and conditions. In other words, at that point it should become more formalised. Nitko (1996) reasons that this is to ensure fairness and give results which are nationally comparable. As he points out, it is therefore necessary to have some distinction in conceptualisation between CA for formative and summative purposes although he recognises the two are not mutually exclusive in any assessment event. (Issues about the conceptual interface between formative and summative assessment are discussed in Chapter 4).

The distinction relates specifically to the informal *ad hoc* uses of teachers' assessment to monitor and promote students' progress and the formal and more deliberated forms which *may be used for formative purpose* but which serve more official purposes. Similar distinctions have also been suggested by Shaw and Radnor (1995). The former, Nitko calls "instructional continuous assessment" or "informal CA" and is synonymous with the informal gathering of information about the students' progress in learning (Rogers, 1974; Harlen, 1976; Macintosh, 1976). Shaw and Radnor (1995) term this, "integrated formative assessment" and, explain that this does not require specific assessment instruments to disengage the teaching and learning flow. The teacher mainly forms judgements about students' abilities and potential through normal classroom teaching and response to tasks set as part of the teaching and learning process.

In contrast with this approach there is the more formal or "official CA" (Shaw & Radnor, 1995; Nitko, 1996). In this mode, common assessment procedures and techniques are employed by the teacher as systematic evaluation of students' performances. Nitko argues that it is only the official component that should count towards certification or selection. The reason he explains is that since the results from CA become part of the student accountability system, its procedures and techniques need to be crafted with deliberation and care. Shaw and Radnor (1995) point out that for fairness in the moderation of CA it is important to have commonality in assessment design, procedures, criteria and documentation. This implies that CA that feeds into a high-stakes assessment system does require some systematic means of collaborating teachers' assessment methods or procedures. It brings to the fore the issue about the technical credentials of CA methods and the result that emerges from it.

51

From the above discussions it can be concluded that the phenomenon of CA is considered to have two important dimensions. First, is the informal dimension in which teachers in the act of teaching "implicitly use skills of formative assessment" (Radnor & Shaw, 1995) to identify students' learning problems on a daily or timely basis. The second dimension embraces a wide range of formal assessment procedures that are carefully designed to gather data on students' achievements for both instructional and official purposes.

In this thesis, the term 'CA' has been used mainly to refer to *planned* learning activities and tasks given periodically throughout a course of training and from which summative scores are derived. But, it also refers to the process of gathering, interpreting and using information about students responses to the learning tasks and activities. Thus, it encompasses both responses to specially devised tasks for summative purposes and also processes of using such responses to promote student learning and development.

3.1.3. Categorisation of Continuous Assessment Procedures

Hoste and Bloomfield (1975) have provided an interesting categorisation of the range of procedures and techniques that fall under formal CA. These are;

(i)   Learning experience assessments, ie. learning experiences that also form the basis of assessment.

(ii)   Special assessment, ie. special exercises conducted to sample learning.

This categorisation of CA parallels features of the assessment framework for teacher

training which will be discussed in the next section. According to Hoste and Bloomfield, learning experience assessment refers to an exercise or assignment set to teach a particular skill or concept or fact which then becomes the raw material for assessment. Here the teacher discusses with the student how successful he/she has been in carrying out a task or exercise, pointing to errors and making suggestions for further improvements whilst also grading the performance. It therefore reflects both formative and summative assessment. Essentially it requires some activity by the student during the learning process which results in a product for assessment.

In teacher training, professional learning assessment activities that could be classified as learning experience assessment would be for example, the development of an instructional scheme of work. Similarly, developing an appropriate instructional aid to facilitate an aspect of student learning could be classified as a form of learning experience which could become the subject of assessment.

At the other end of the categorisation spectrum is special assessments. They are useful for seeking students' understanding of concepts and principles or ways in which they analyse issues and problems without being linked to a specific learning event. Essentially they are summative in focus. Specific tests or examinations which set out to discover what learning has taken place may not provide the same level and amount of feedback as may the learning experience assessments. This is because they often do not require teachers to give as detailed as possible information about strengths and weaknesses whereas for learning experience assessments the processes call for substantive feedback. However, Hoste and Bloomfield point out that special assessments are not purely assessment without opportunity for improving learning: often teachers may intend

it to teach concepts or skills through a substantive feedback process.

In summary, learning experience assessments could be described as assessments embodied in the teaching and learning process. Here assessment is part and parcel of the instructional programme and could be used as the subject of instruction and learning (Hoste & Bloomfield, 1975). Special assessments, on the other hand, can be viewed as snapshots of specific achievements of students as they progress through the course. Shaw and Radnor (1995) have categorised this as "snapshot summative assessment". The teacher may decide to give this assessment in "order to sum up where (students) have reached in a particular area and aspect of learning" (Shaw & Radnor 1995 p. 133).

This categorisation of CA phenomena is, in my view, important for clear conceptualisation and formulation of CA policy, especially in the forms of assessment techniques and procedures that the CA process has to include for achieving its purpose.

3.14. Framework for Continuous Assessment Practice

Nitko (1996) has suggested that "the important ideas about CA can be organised within a framework that focuses on students' learning the important outcomes laid down in the curriculum" (p.324). In an example, he provides a framework for a curriculum-based CA in which the main ideas are categorised into formative and summative purposes of assessment. The importance of formulating such a framework, he points out, is to offer guidance in the development of appropriate assessment tasks to underscore important learning outcomes. Nitko's suggested framework for CA applies particularly to academic education since it relates to the basic uses to which assessment results in that domain can be put.

Generally, the main learning outcomes expected of the PSTT curriculum in Ghana are: displaying a sound knowledge of subject content and pedagogical teaching knowledge and skills. A framework for CA in an initial teacher training context could therefore be summarised as illustrated in figure 3.1 below drawing together; the major ideas discussed about CA from the previous two sections. First, the main idea is that CA procedures for teacher training can be organised to reflect the activities and instructional programme of teacher training. That means some of the training agenda becoming episodes for learning experience assessment. Secondly, through periodic assessments, students' knowledge of the subject matter and other pedagogical knowledge could be assessed using tests, exercises and essays. Certain aspects of the present CA scheme for PSTT in Ghana reflects this framework for CA, in particular some recommended assessment tasks reflect the learning experience component of this framework. For example, one recommended CA task in Mathematics states: "While on Teaching Practice carry out a study of the difficulties faced by one particular child in learning mathematics". Another is, "Over a year produce and collect a set of teaching aids, made from readily available materials to form a mathematical teaching/learning kit." (See Guidelines for Administering CA in Mathematics, Ghana Education Service/Teacher Education Division 1992).

The point of this framework, however, is that it can provide the basis for designing CA tasks and activities to reflect the objectives of teacher training. The framework also suggests that traditional testing approaches have a role to play in the assessment of student teachers. This leads to the question: what purposes do written tests, exercises and essays serve in teacher training? This is the subject of the next section.

Figure 3.1

Continuous Assessment for Teacher Training-Based Curriculum

INFORMAL CA

Mainly for formative purposes and is
derived from the tutors' written/oral
comments and discussions with
students about professional learning

- may include student self-assessment
  of progress

FORMAL CA

Assessments under more structured
conditions using clearly defined
assessment procedures and plans

- may provide the basis for formative
  feedback

LEARNING EXPERIENCE ASSESSMENTS

Tutor's systematic evaluation of
professional related activity tasks
which may include;

-projects
-performance assessment (may include
 simulated tasks eg. planning a teaching
 unit for a specific topic... presenting
 different ways to introduce a concept
 to a specific teaching level
 (Delandshere 1994)
-investigational activities involving
 teaching/learning situations

SPECIAL ASSESSMENTS

-Assessments targeted at sampling
 knowledge of specific aspects of
 subject content matter
-General and content matter
 pedagogical knowledge (Shulman
 1987) may be assessed through
 tests, written exercises, short
 essays etc.

Becomes the basis for summative CA for use as part of
a summative profile of achievements or, marks combined
with external examinations for certification purposes

3.2   Use of Traditional Testing Approaches: Relevant or Redundant for Teacher Training?

The use of pen/pencil and paper testing approaches as part of professional teacher assessment brings to the fore several critical questions. Murname (1991) for example, asks whether in using such approaches prospective teachers could master the skills needed to do well in them and still, fail as teachers because of inability to work with pupils. Equally could they do well in these tests but fail to translate the learned principles of teaching into effective classroom practice. In his view it is important that the skills measured on professional teacher assessment *appear* to contribute to effective teaching. In other words, they must have systemic validity, that is, be capable of inducing changes that foster the development of the requisite skills that the test is designed to measure (Frederiksen & Collins, 1989). Clearly, pen/pencil and paper testing approaches will have limitations in this respect, far more than for example, performance related assessment. As Nuttall (1987) points out in a comparison between pencil and paper tests and performance assessment:

> "One hypothesis about why performance assessments are better predictors of occupational competence than paper-and -pencil tests is that paper-and-pencil tests have fewer elaborative features than performance assessments. But a more plausible hypothesis is that it is due to the lack of match between the nature of the tasks in a paper-and-pencil test and on the job, and the context of testing and normal occupational performance". (Nuttall, 1987, p. 154 - 155).

In other words, paper-and-pencil testing approaches, particularly under standardized conditions would place considerable limits on validity. This must raise questions about its usefulness in professions that are performance related such as teaching. However for

teacher training, Stones (1994) argues that it is much more difficult to assess the final intended outcome than to assess the learning outcomes that contribute to their achievement. He notes, "... all one can do, is to take test samples ... because of the difficulty or impossibility of testing skills in the situations in which they would be manifested naturally" (p. 237). In support of this view, Haertel (1991) argues that the processes involved in thinking and planning teaching before the action, are important for effective teaching and therefore merit testing. Similarly, Shulman (1987) argues that pedagogical reasoning is as much a part of teaching as is the actual performance of teaching itself so, testing practices which examine knowledge about teaching can fulfill a useful purpose in the assessment process of prospective teachers. Delandshere (1994) presents similar arguments which support this perspective. She points out that students' written explanations about how they intend to organise a lesson or articulate a teaching unit for example, "can provide evidence of conceptual understanding of the subject matter" (p. 103). Also, it can reveal their understanding of "... how to best select, organise, represent or transform the material in order to promote learning and understanding" (Delandshere, 1994, p. 103). Assessing such understanding, revealed as written explanations, would therefore be about the *thinking* that goes into developing a particular unit or the rationale behind its structure and content. Research by Stein, Baxter and Leinhardt (1990) suggest that teachers' orientations to the subject matter influences how they approach instruction. Similarly, Reynolds (1992) points to research which suggest that teachers with,

"more explicit and better organized knowledge tend to provide instruction
that features conceptual connections, appropriate and varied

58

representations, and active and meaningful student discourse. On the other hand teachers with limited knowledge have been found to portray the subject as a collection of static facts; to provide impoverished or inappropriate examples, analogies, and/or representations; and to emphasize seatwork assignments and/or routinized student input as opposed to meaningful dialogue" (Reynolds 1992, p. 641).

This adds to the argument that assessing student teacher's understanding of the content knowledge is important because it could provide some indication of the student's potential in presenting meaningful instruction for learning.

For Shulman (1987), pedagogical reasoning processes form part of a knowledge base of teaching necessary to inform professional teacher judgements and actions and therefore are worth testing.

From the above discussions, there appears to be good reason for including traditional testing as an important part of the teacher training assessment process because they can provide additional insight into how students have conceptualised the teaching of the subject. Mainly as the discussions revealed, testing could be addressed to the issues that relate to the knowledge base of teaching. How important is this knowledge base of teaching for assessment and what are its limitations? This is the focus of the discussions in the next section.

3.3. The Knowledge Base of Teaching and the Implications for Assessment in Teacher Training

Shulman (1987) and Haertel (1991), writing within the context of teacher training in the United States, advocate for a conception of a knowledge base of teaching that sets forth a theory about the underlying knowledge and skills teaching requires, informed by

exemplary teaching practices in contrast to canonized procedures of classroom teaching. Haertel (1991) for example, argues that prescriptive curricular and model teaching practices are of limited value in deriving a conception of the knowledge base of teaching. According to her this is because often they are grounded in a model which holds teachers responsible primarily for implementing prescribed procedures as opposed to their own professional judgements about which instructional approach fits, or needs adapting to a particular situation. The point Haertel appears to be making is that teachers need to be introduced to some core of special knowledge about teaching but in a context that holds promise for helping them to make informed judgements about teaching.

It is this knowledge base of teaching which then becomes the basis for developing certain professional teacher assessment tasks or exercises (Shulman, 1987; Haertel, 1991). Shulman & Sykes (1986) have suggested that in the content specific pedagogical knowledge area of teaching, some of the issues that could be tested are, for example:

> "What are the concepts, skills and attitudes which this topic has the potential for conveying to students? How are these related to prior and later opportunities for achieving those goals in the curriculum? ... What analogies, metaphors, examples, similes, demonstrations, simulations, manipulations, or the like are most effective in communicating the appropriate understandings or attitudes of this topic to students of particular backgrounds and prerequisites?..." (Shulman & Sykes, 1986; p. 8-9, quoted in Haertel, 1991).

These questions are mainly about examining the students' pedagogical knowledge base and their ability to relate it to hypothetical teaching and learning situations.

What clearly testing the knowledge base of teaching will not provide is the guarantee that students who display satisfactory understanding of teaching principles or concepts through testing will necessarily make good teachers. As Stones (1994) points

60

out, this is because of the very complex nature of teaching and the infinitely complex nature of human learning. Consequently, Stones argues that it is important that teacher training assessment possesses a strong formative evaluation element to equip students with the skills of diagnosis in respect of their own performance. This is to ensure that when they leave college beginning teachers can become responsive to the needs of learning and can self-monitor their teaching for improvement. (Issues about self-monitoring through formative evaluation of professional learning are discussed in detail in Chapter 4). Thus far, it can be concluded from the discussion that although testing students for fundamental concepts and principles of teaching are important they are nevertheless not sufficient.

Shulman (1987) has presented a model of teacher training in which he links pedagogical reasoning with the practical aspect of teaching. In it he attempts to emphasise as part of the training, the importance of introducing student teachers' to certain aspects of teaching practice. The model consists of six components. The first two, *comprehension* (of purposes, subject matter structures etc.) and *transformation* (involving stages of preparation, representation, selection and adaptation) deal with the pedagogical reasoning part, while the remaining four address the action component. These are; *instruction, evaluation* (i.e. checking for student understanding during interactive teaching), *reflection* (reviewing, reconstructing, etc.), and *new comprehension* (of purposes, subject matter, students, teaching, self, etc.). In effect, the action component is about assessing students on how well they can relate the pedagogical knowledge base of teaching to practical or simulated teaching events. Such assessment "... takes as central the need for students to demonstrate in their teaching ..., a knowledge

of pedagogical principles that is likely to be of abiding usefulness when they have left the training institution" (Stones, 1994; p. 241). Evidently this model of training and assessment is an attempt to improve the validity of overall student teacher assessment.

The practical/professional end of this model of student teacher assessment will have limitations characteristic of performance-related assessment. For example, Nuttall (1987) points out that there are several factors, such as motivation and the relationship between the assessor and the assessed and the conditions of assessment which influence any kind of performance-related assessment. This places limitations on the interpretation and generalisability of performance-based assessment. Similarly, it could be argued that assessing teaching capability from a performance angle does not necessarily provide conclusive evidence of ones ability to teach effectively in real situations. This is because of the extraneous and intrinsic factors that are known to influence ones performance under conditions of assessment, thus contaminating the evidence (Nuttall, 1987; Stones, 1994).

It is reasonable to conclude from the above discussions that both traditional testing approaches and performance/practical related assessment individually will have limited validity in terms of their ability to provide conclusive evidence of teaching ability. Their value, it would appear, lies in them acting in complement to each other to enhance the overall validity of student teacher assessment. Parallels can be drawn with the CA framework illustrated in figure 3.1. The combination of learning experience assessment and special assessment has thus the potential to enhance the overall validity of the CA process in a teacher training context. From the point of view of this thesis, the critical issue is how well this framework can be translated into specific assessment procedures 47

62

within the context of a CA process for teacher training.

Another important issue emerges from the discussion. It concerns the technical characteristics of teacher training assessment procedures and what implications they indicate for the current teacher training CA scheme in Ghana.

3.4. Continuous Assessment in Teacher Training: Issues about Technical Credentials and their Implications

Currently, in PSTT in Ghana, aggregated CA marks from individual tutor assessment are combined with marks derived from the external examination and the result is used for making teacher qualification decisions. (See Chapter 1). There has always been concern expressed about the credibility of CA marks, particularly as there is no mechanism in place to validate tutors' assessment procedures and to check for the reliability of marks derived from them. Essentially such concerns are about the technical criteria of validity and reliability of CA and whether the decisions based upon the results of which CA contributes are trustworthy. As Crooks et al., (1996) point out, ensuring the validity of assessment procedures is one of the important considerations in the use and interpretation of assessment results. Also, Linn (1989) points out that when results from different assessment contexts are combined to give an aggregated score, this immediately raises questions about the validity of the results.

The validity and reliability of CA procedures for PSTT in Ghana has never been given the serious deliberation it deserves at least from the technical standpoint. The debate about it in teacher education circles has focused narrowly on issues such as reducing the current weighting of CA as a measure to reduce the threat to the validity of

qualification decisions. (See Minutes of the Professional Board of the Institute of Education UCC, 1995, 23/3/95). It is the contention of this thesis that this strategy is superficial and does not address real questions about validity and reliability. The discussion of the literature about validity and reliability, in the next two sections, is an attempt to raise the critical issues for more trustworthy CA practices in Ghana. In particular these issues are important in considering the design of assessment procedures for teacher training in Ghana.

3.4.1. Validity

The literature discusses several types of validity of assessment procedures as well as reconceptualising many of the traditional categories of validity evidence (see for example, Messick, 1989; Wiliam, 1993). Many of these are complex and beyond the scope and interest of this study. However, certain aspects of the concept of validity are important to the consideration of professional teacher assessment procedures and merit brief discussion.

Face validity: This answers the question: Does the "... assessment *look* as if it will mean what it is, supposed to mean?" (Wiliam, 1993, p. 5). In other words, does it appear to be measuring the sort of tasks required of a particular subject domain? In the teacher training context, the crucial face validity question would be whether the assessments appear to measure the kind of things expected of teaching. Hoste & Bloomfield (1975) put it in another way: "does the assessment procedure *appear* to test ... the aims of the course adequately?". Such questions are important since they have implications for what

can be assessed as well as how it should be assessed. Gipps (1994) points out that performance assessment does tend to have good face validity. As Haertel (1992) explains this is because performance measurement call for examinees to demonstrate their capabilities directly, by creating some product or engaging in some activity that relates to the ultimate task. Similarly, Delandshere (1994) has indicated that new teacher training assessment methods, such as portfolios, reflective essays and practical tasks, appear to have more face validity than written tests. Wiliam (1993) notes that for assessment to command a good measure of confidence among users such as employers, it is important that it possesses high face validity. In a similar vein, for the results of CA to command confidence the methods of assessment under it should possess fairly high face validity.

Content Validity: Content validity is often defined as: the extent to which the sample of items, tasks, or questions on a test is representative of the domain of content (Moss, 1992). But, Wiliam (1993) argues that "content validity should be concerned not just with test questions, but also with the answers elicited, and the relationship between them" (p. 4). By this, Wiliam is advocating for content-related evidence to extend to include the behaviour elicited actually corresponding to the intentions of the assessment task. He explains with an example. A test purporting to assess students' understanding of forces "would be invalidated if it turned out that the reading requirements of the test were so demanding that students with poor reading ability, but a sound understanding of forces, obtained low marks" (p. 4). In other words, if a student possesses an understanding of an issue demanded by a test, but fails to show it for reasons of linguistic difficulty then, the results of that test would be invalid.

Wiliam takes this idea from Ackerman (1991). Ackerman points out that a test would be considered *biased* and invalid, if it makes different *impact* on the people who take it because of interfering factors which prevent the appropriate response from being demonstrated. Content-related evidence is therefore, not only demonstrated by the degree to which samples of assessment tasks are representative of some domain of content. It is important for the behaviour elicited by the test item not to have been influenced by factors that conceal the true ability or potential of the student. This could be an argument in support of school-based teacher assessment as the conditions of assessment can be arranged to provide *ecological* validity; that means relating the assessments as closely as possible to the learning experiences of the student. As Crooks et al., (1996) point out, "the circumstances under which student performances are obtained can have major implications for the validity of the interpretations ... from an assessment" (p. 270). Issues such as low motivation, assessment anxiety, inappropriate assessment conditions can all be threats to the valid use of CA results. Thus, the *administration* of CA in the training colleges is an issue that is important in the consideration of validity. For example, in this research an issue to be explored is students' perception about the administration of CA and the way that has affected their commitment and approach to assessment tasks.

Criterion-related validity: The extent of *relevance* of the criteria for assessment to the decisions they are to inform, according to Haertel (1991), is an important validity criteria. Wiliam (1993) rightly notes that this is similar to the notion of predictive validity, which is the ability of the assessment to predict some future performance as opposed to inform on current performance (ie. concurrent validity). For Haertel, one of the issues which

would need to be addressed as far as criterion-related validity of professional teacher assessment is concerned, is how to formulate reliable and valid criterion measures. In this study, it would be important to know whether assessment objectives or assessment criteria feature in tutors' assessment work.

Construct Validity: Gipps (1994a) has observed that more recently,"the literature on validity has emphasized that validity is in fact a unitary concept with *construct* as the unifying theme" (see also Messick, 1989; Cronbach, 1988). Similarly, Wiliam (1993, p. 11) notes that the notion of validity has widened from,

- a property of an assessment (content validity); to

- a property of the behaviours elicited by an assessment (content validity/descriptive validity); to

- a property of the inferences made on the basis of the assessment (construct validity)

Messick's (1989) definition of construct validity captures the breadth of the concept of validity;

> "validity is an integrated evaluative judgement of the degree to which empirical evidence and theoretical rationales support the *adequacy* and *appropriateness* of inferences and *actions* based on test scores or other modes of assessment" (p. 13, italics in the original)

Moss (1992) points out that "the essential purpose of construct validity is to justify a particular interpretation of a test score by explaining the behaviour that the test score summaries" (p. 233). This means asking whether the interpretation given to the test score

truly summarises the behaviour. One of the strong arguments advanced for the introduction of school based assessment or CA is its potential to enhance the validity of the overall assessment. Gipps (1994a) for example, points out that CA is particularly useful because it allows the range of skills and type of tasks which can be assessed to be expanded, thereby enhancing construct validity.

It can be implied from the above discussion that the key issue about construct validity is whether the inferences made from assessment scores are based on reliable evidence (Messick, 1989; Wiliam, 1993; Gipps, 1994a). For this research, it raises three very pertinent questions that are relevant to the development and interpretation of CA in PSTT in Ghana. These are;

(i) What interpretation can be given to CA scores? Does the aggregated CA score reflect a wide range of skills and knowledge required for effective teaching and;

(ii) Is there diversity in the range of assessment techniques used to capture the various aspects of professional learning and development and finally;

(iii) What is the proposed purpose of CA scores and do the scores have utility for this purpose?

Answering these questions would be addressing an important aspect of the validity of the CA system in teacher training in Ghana. Essentially they ask whether the scores from CA are based on tasks or activities that provide sufficient evidence upon which teacher qualification decisions can be reliably made. They bring to the fore the need to reexamine the evidential base upon which CA marks are derived: - is the evidential base

representative of an essential range of skills and knowledge required of teaching or, is there a need to expand this? Crooks et al., (1996) raise similar questions about construct validity in terms of assessment interpretations and conclude that:

> "If the assessment has been conducted under constrained conditions, narrower than the range of conditions permitted in the target domain, it may be misleading to treat the universe score in the assessed domain as equivalent to the universe score in the target domain. For instance, if all tasks have been presented as multiple-choice items, the results may not give a sound indication of performance on similar curriculum goals but assessed through different task formats. (Crooks et al., 1996, p. 275).

In this research one of the important issues that was investigated was the range of assessment tasks and techniques that was being used by tutors in the case study colleges. This would give some indication of the construct representativeness of CA.

However, the issue of construct validity in teacher training is not as straightforward as may be the case in classical test theory. As Delandshere (1994) points out, "measuring teaching implies recognising that there are many ways to teach, and many ways to think and know about teaching" (p. 109). This makes defining constructs of teaching for assessment purposes problematic, simply because the constructs will inevitably be under-represented, in terms of the range of skills and knowledge required for effective teaching (Darling-Hammond, 1986; Madaus & Pullin, 1987). Delandshere (1994) makes the additional point that although teaching is a complex activity, it is still characterised by traits, knowledge and skills that recur throughout the instructional process. In other words, certain important and definable parts of the teaching process are critical to and contribute to the complex whole and therefore can be viewed as essential constructs. The implication is that a range of assessment tasks can be viewed as a random

sample from this domain of constructs. However, as Crooks et al., (1996) bring to attention:

> "Failure to assess some significant parts of the target domain may occur because the developer of the assessment has not recognised the existence or importance of those parts of the domain, and therefore has not devoted sufficient effort to developing assessment tasks in these areas (content coverage). Alternatively, the developer may have constructed tasks intended to assess performance in the areas, but not succeeded in focusing the tasks well enough to achieve the intended purpose (content, quality, cognitive complexity)" (Crooks, Kane & Cohen 1996, p. 276)

The point being made here is that when an assessment does not sample some parts of the domain it is supposed to represent, the scores that are subsequently derived from them have limited validity, in terms of the interpretation and decisions based on it.

Hoste & Bloomfield (1975), comparing the degree of validity in relation to the type of assessment, usefully summarise (Table 3.2), the potential of CA procedures in contributing to overall validity of assessment. In particular, the table shows that learning experience assessments have the potential to achieve high content and face validity. Also, it suggests that the degree of construct validity depend to a large extent on the representativeness of the course construct, in the tasks and the assessment techniques.

From the discussions in this section, it is apparent that there are several factors that can pose a threat to the validity of CA results. These have been enumerated. It is how these threats are managed both by the developers of the CA scheme and by tutors in the training colleges that will determine the degree of trustworthiness of the results of CA. This means that much of the evidence for validation should be addressed by developers during the design of CA procedures and the development of assessment tasks (Crooks et

al., 1996). Training in assessment for teachers is also important to ensure that they are adequately skilled in developing appropriate assessment procedures and tasks to assess students. It is important to note that the issues discussed here are not restricted to CA procedures alone, but can apply to conventional examinations.

Table 3   Validities of learning experience assessment, special· assessment techniques, and conventional examinations and tests

Type of validity	Learning experience assessment	Special assessment	Conventional examination and tests
Content	Very high	Depends on skill of constructor, but is probably higher than for externally set examinations	Varies with examination/test and course followed
Face	High	Fairly high (see comment above)	As above
Criterion-related	Depends on criterion chosen	Depends on criterion chosen	Depends on criterion chosen but probably will be higher for specially constructed tests than for conventional examinations or continuous assessment
Construct	Should be similar to the constructs underlying the course	Depends upon the assessment techniques and the individual tests and test items	Depends upon the test or examination and the individual test item

Source: Hoste & Bloomfield, (1975)

3.4.2. Reliability

As it was pointed out earlier, in the current PSTT system in Ghana CA marks are simply added to the external examination marks to determine the fate of candidates in a subject. What has concerned many is the reliability of the marks from CA. Reliability is essentially concerned with the production of results from assessments which are *consistent* and *dependable* (Hoste & Bloomfield, 1975; Wiliam, 1993). This section examines the arguments about reliability of teacher assessment within a CA framework.

The one advantage with external examinations, some argue, is that because they are amenable to standardized administration they engender high reliability and therefore offer a trustworthy standard (Kahn, 1990). However, Satterly (1994) has provided evidence and arguments to suggest that the notion of external examinations having high reliability is not defensible. Referring to recent reliability studies, he points to factors such as differences between and within assessors and interaction of students with tasks, as sources of variation in external examinations (see also Murphy, 1982; Lehmann, 1990; Wesdrop et al., 1982). Satterly concludes that:

> "Teacher assessment over time and task is, potentially, better equipped to overcome this drawback and reach a dependable conclusion about the worth of students' written work" (Satterly, 1994, p. 63)

Nevertheless, teacher assessment is still considered to present particular problems of reliability. It is often the contention that because teachers' assessments make use of multiple assessment methodologies and occurs under varying conditions, they are particularly subject to a variety of influences that bias the results. Some researchers have tried to move the debate about reliability of teacher assessment beyond the technical

arguments, pointing out that the value of CA lies with its potential to support and promote learning (see, for instance, Sadler, 1989). But, as one writer has observed, this ignores the interaction with purpose: if teacher assessment is part of accountability or certificating process, then the issue of reliability cannot simply be brushed aside (Gipps, 1994b). Similarly, others argue that the "the matter of reliability must be faced, for ... an unreliable assessment is not only of little use but can be unjust" (Harlen, 1994). Daugherty (1994) supports this view pointing out that:

"use of evidence obtained during the course by teachers as a component in the final grading would be called into question if the reliability of those assessments were not demonstrably sufficiently robust for the user of the certificate to have confidence in it." (Daugherty, 1994, p. 101)

Therefore the issue of the reliability of teacher assessments has to considered far beyond collective terms especially if it is part of a high-stakes assessment system.

Gipps has noted that various methods of moderation coupled with training and the setting of common criteria for grading purposes are capable of enhancing reliability of teacher assessment. She does however concede that, the "enhanced validity offered by teacher assessments is gained at a cost to consistency and comparability" (p. 78). Standardizing CA procedures, so that tutors use the same assessment tasks and criteria may not necessarily enhance the reliability of the assessments either. Differences in the context and conditions of assessment within and between institutions suggest that even common assessment criteria will not automatically raise reliability of the results of CA. As Gipps (1994b) points out:

"Where students perform the 'same' task for internal assessment purposes (eg. a practical maths or science task or an essay with a given title) there are bound to be questions about the comparability of the judgements made by different teachers. Where there is no common task but common assessment criteria or common standards the problem is different but the question the same: can we assume that the assessments are comparable across teachers and institutions?" (p. 78).

Thus, whichever way the issue is looked at, there are bound to be constraints threatening the reliability of teacher assessment and subsequently the results of CA. The key, as Harlen (1994) makes clear, is how to achieve optimum reliability for the assessment's purpose while maintaining high validity.

Elsewhere I and Murphy have asked, (Akyeampong & Murphy 1996) whether scores from CA should not be reported and used separately from external examinations since their context and conditions are so different. We point out that what is perhaps needed is a mechanism for considering the two separately but using the evidence from both to arrive at an acceptable standard of performance. Although this does not make any less important the issues about reliability, it allows for each to be considered for its own purposes. However, there is as yet little clear consensus about these matters and what is required is more research into teacher assessment to provide clearer understanding of the relevant issues (Akyeampong & Murphy, 1996).

The issues raised so far in this section would apply to professional teacher assessment procedures. Assessment methodologies for teacher training which for example, involve open-ended investigative tasks intended as episodes of professional learning (ie. learning experience assessment), make it even more difficult to achieve high reliability of CA results, for reasons as discussed above. Finally, the discussions in this and the previous section (section 3.4.1) point to the importance of a mechanism for

74

quality control of CA procedures and results. The term that is most commonly used for this in the assessment literature is moderation and this is the subject of the next section.

3.5 Moderation of Teacher Assessment

3.5.1 Introduction

This section reviews issues in the literature about moderation of teacher assessment. The discussion is structured in two main sections. The first section takes a preliminary look at the two main approaches to moderation: group/consensus and statistical moderation and at their main advantages and disadvantages. The second section provides a summary review of research into some of the practical difficulties of group moderation. Finally, the discussion indicates the implications of the key issues for standardizing teacher training assessment for quality assurance and control purposes.

3.5.2 Methods of Moderation

Shaw & Radnor (1995) explain that moderation of teacher assessments is essentially an attempt to review teachers' judgements of the value of students' work, in terms of its quality and reliability of results. This is necessitated by the knowledge that teachers' judgements of students work are open to all kinds of prejudices, extraneous influences and biased interpretation (Murphy, 1987; Gardner, 1994; Black, 1993). Gardner (1994) for example, points out that teachers have been influenced in their judgement of student ability by factors as unrelated to performance as physical attractiveness, 'halo' effect etc. Harlen (1994) has identified other sources of error in teacher assessment such as variation in the demand or opportunity provided by

assessments undertaken by students, differences in interpretation of performance criteria or marking schemes and the intrusion of irrelevant contextual information in making judgements. For fairness and credibility, particularly when teacher assessment forms part of a high-stakes assessment system, it is considered necessary to moderate the process and outcome.

The job of moderation, according to Shaw and Radnor (1992) is essentially:

"to monitor the quality of assessment and ensure that it is fair, to see that the procedures have been adhered to, and check on interpretations - that is, how criteria have been applied to cases; it should take account of context in which the work is done by the students, adjust and correct invalid or erroneous assessments, and maintain consistency across samples of work and institutions" (p. 230).

This is undoubtedly a process that can be laborious, time-consuming and costly. The relatively cheaper and easier option is statistical moderation. It basically attempts to transform, through statistical techniques, internally assessed marks so that they closely match marks from external examinations. Increasingly, this system of moderation has come under criticism for lack of a context-added dimension. Also, Murphy (1991) argues that the assumptions which underpin its operation are hardly justifiable and in fact are questionable. He points these assumptions as:

"internal assessment is essentially designed to test the same skills and abilities as are assessed by the external examination, and that external examination provides a valid and reliable measure of those skills and abilities, and correlations between internally and externally assessed marks are consistent within each group of candidates" (p. 3).

If teacher assessment is meant to supplement and not complement external examinations then adjusting students' marks using results of an external examination becomes even more disputable.

Again, Murphy (1982) has suggested that from a social perspective, statistical moderation techniques may be hard to explain to the public and teachers and students may find it difficult to understand. Murphy (1991) does however see a use for statistical moderation but as a device for identifying a sample of institutions or teacher groups, for further moderation by non-statistical methods. In other words, statistical moderation does not become the final arbiter, of grades or marks, instead it becomes a device for identifying potential discrepancies in teacher assessment.

Another approach, often preferred among professional educators, is 'consortium or consensus/group moderation' (Shaw & Radnor, 1995; James & Conner, 1993; Murphy, 1991; Gipps, 1994b; Harlen, 1994). It is described as meetings of teachers at which grading criteria and agreed schemes of assessment are discussed, in order to reach a consensus about their quality and appropriateness. Within that setting, samples of internally assessed work from the different institutions undergo scrutiny for their comparability and where necessary, recommendations for mark adjustment are suggested (Murphy, 1991). This approach gives weight to the professional judgements of teachers and presents opportunity for such judgements to be developed further. Research evidence suggests that where teachers come together to discuss performance standards, or criteria, the moderation process becomes a process of teacher development with backwash on teaching (Gipps, 1994b).

There are different models in the literature about the method of group/consensus

moderation (see for example, Harlen, 1994). However, the model suggested by researchers, Shaw & Radnor (1995) is of particular interest to this study. It is based upon a partnership between teachers (insiders) and 'experts' from an examination board. Shaw & Radnor have named this model as the "reconciliation model of moderation". This is shown in figure 3.2 below. Though the model is with reference to the British National Curriculum, they point out that it can have application beyond it. Generally, the model "perceives accountability as a two-way process, that of the more 'objective' assessment establishment, that is, the moderators' officialdom, working in association with the more 'subjective' teacher community " (p. 242).

The reconciliation model of moderation appears to hold promise for application in the CA system in Ghana. This is because of the opportunities it presents by way of interaction, for tutors to work collaboratively and under 'expert' guidance to improve the standard of training. However, considering that there are thirty-eight teacher training colleges offering courses in 13 subjects, operationalising it will undoubtedly present enormous challenges. Already, Shaw & Radnor have listed administrative difficulties and cost as two main problems that may affect its effective use. Other problems that are envisaged to affect its implementation particularly in a developing country such as Ghana is: paying for travel for teachers coming on moderation, xeroxing costs due to the need for multiple samples of students work, planning, problems of the size and representativeness of student work that will be necessary to maximize validity, and storage. Other difficulties are enumerated and discussed in the next section. It would be important to find out in this study whether certain fundamental requirements or conditions needed before group/consensus moderation can effectively operate are present in the case

Figure 3.2   The reconciliation model of moderation

ASSESSMENT SAMPLES OFFERED

School/Community

Reference Group/Exam Board

INSIDERS

OUTSIDERS

Reconciliation

Knowledge/Experience
of different contexts

Moderation
Process
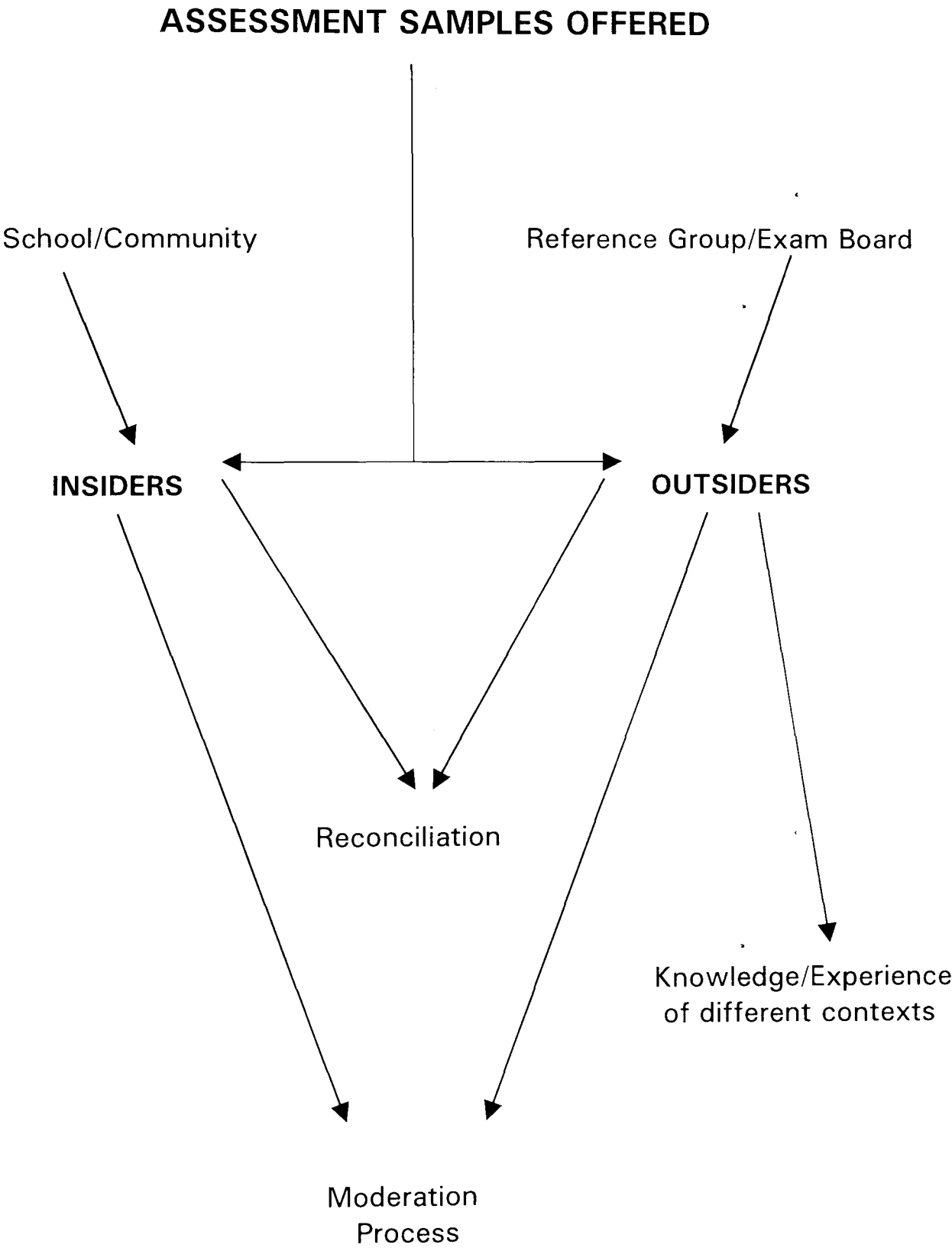
study colleges. Examples are: professional competency of tutors in assessment, the management of CA in the colleges, whether well-planned assessments take place, and whether 'outside' personnel exist who have had the requisite training and experience to offer guidance to the process.

3.5.3 Problems of Group/Consensus Moderation

A survey of some of the more recent research into the moderation of teacher-assessed work revealed that there are certain practical difficulties that can clearly undermine its effectiveness. Among the most significant ones identified in this study are the following (see Shaw & Radnor, 1995; James & Conner, 1993; Buchan, 1993):

(i)   Assessment criteria which might at first appear to be a simple matter of clarification often turn out in practice to need a carefully managed and thorough discussion between teachers and the moderators. In other words, the interpretation of assessment criteria is not a simple and straightforward matter and can complicate the moderation process.

(ii)   For teachers to be genuine partners in moderation in a fully professional way, they need adequate training, particularly in the methods or techniques of assessment.

(iii)   Teachers tend to vary in the detail they include in justification of the grades they give. Some grade and annotate every element so that the grade is a cumulative outcome. Others provide general overall comment with the grade. This presents a dilemma at moderation meetings, since at that point it is difficult to repair anything that has gone wrong with such grading practices. This makes it difficult to award a grade that is seen to be fair at moderation.

(iv)   There are sometimes problems with gaining access to the kind of evidence that would enable external moderators to make judgements, or give guidance to teachers about the adequacy of their assessments. Some teachers are unable to provide sufficient evidence due mainly to the scope of assessments they have had to cover, and the constraints on their time.

(v)   As would be expected, teachers often interpret official guidelines on school-based assessment differently. There are also variations in the presentation of tasks between teachers and schools, and variation by some teachers in the mode of presentation from one group or individual student to the other. This, inevitably influences the way marks are awarded, making comparison difficult.

(vi)   Teachers complain that moderation procedures often do not allow sufficient time for reflection and professional development. In other words, the quality assurance end of the spectrum of moderation is often not given sufficient emphasis or attention.

(vii)   Varied backgrounds and motivations of those participating in moderation often create complications. Some people show more interest in the quality assurance end of moderation, while others emphasise measures of quality control, such as common approaches to assessment tasks across institutions.

These are issues that clearly will need to be addressed in any group moderation situation. However, the issues show the enormous task that will face the implementation of a system of moderation in which teachers are closely involved. Though these findings relate to moderation of teacher-assessed work in Britain, it is reasonable to expect that they will

not be very different with other educational systems which might want to introduce group moderation.

Moderation relies on commonality in the assessment process, as Shaw and Radnor (1992) point out. In other words, common assessment procedures and criteria are vital if the moderation process is be efficient and meaningful. This amounts to standardizing the conditions and procedures of the assessment process to enhance the reliability of scores. But such standardisation can impose strains which distort student performance and so lower the validity of the assessments (James & Conner, 1992; Nuttall, 1987). The contentious issue, as far as the teacher training context is concerned, is the extent to which its assessment procedures should be standardised. Delandshere (1994) has indicated that standardizing certain professional teacher assessment exercises, especially those nested in context, tends to compromise validity. This is because such exercises "recognize a range of appropriate responses which cannot all be documented since they are dependent on the (often implicit) assumptions made by the student and on the context in which they operate" (Delandshere 1994, p. 110).

One important challenge that faces post-secondary teacher training in Ghana is how it tackles the issue of standardization of assessment procedures. Again, this thesis will examine whether sufficient commonality in assessment procedures and criteria exists in the case study colleges to make moderation feasible.

3.6 The Side-Effects of Assessment

The potential of assessment to drive the curriculum and lead to all kinds of undesirable consequences on teaching and learning is acknowledged by many education researchers and writers. As Crooks (1988) points out it is "one of the most potent forces influencing education" (p. 467). Gipps (1994a) points to the fact that different forms of assessment encourage different styles of learning via their effect on teaching.

Examinations, particularly in African educational systems, have been noted to have serious negative effects on the educational process (Kellaghan, 1990). A study of the effects of examinations on curriculum and teaching in the education systems of fourteen African countries is reported in a World Bank Technical Paper written by Kellaghan & Greaney (1992). The report suggests that in many African countries the "tradition of past examinations" was setting the agenda for teaching and learning in schools. The authors of the report further noted that:

> "... subjects that are not tested tend to receive relatively little teaching emphasis; that considerable class time is devoted to fostering test-taking strategies; and that passive concepts of learning are promoted." (Kellaghan & Greaney, 1992, p. 42)

As, was pointed out earlier in this chapter, teachers' CA has been claimed to possess the potential to influence student learning in a much more positive way than examinations. The way in which it is considered to do that has already been discussed earlier in the chapter. However, the whole idea of using assessment to positively influence learning appears to be much more than a function of the characteristics of the assessment system. As Biggs (1996) argues forcefully, students' perception of assessment and of the

demands that it is seen to make generates the effect on their learning. In this section, some of the reasons for the effect of assessment on student learning is examined. The characteristic feature of assessments and how they might influence student learning is also discussed.

3.6.1. Effects on Studying and Learning.

Newble and Jaeger (1983) have described a situation in medical education, where attempts to improve an examination procedure resulted in unintended consequences on both studying and learning attitudes of student. In their report, an interesting innovation in measuring clinical competence was introduced when the traditional 'oral' procedure was considered subjective and was replaced by a form of continuous assessment in the wards. Within two years, it was found that students' clinical competence had declined. The reason, they discovered, was that because the ward assessments never resulted in failure, students were spending their time on rote learning for the theory examinations where there was a substantial failure rate.

Two limited inferences could be drawn from this particular case. One is that, students' attitude to assessment can be influenced by how they perceive its value in relation to their chances of final certification, whether it is high-stakes or low-stakes. Secondly, students' learning behaviour can be influenced by the demands that the assessment is seen to make (Rowntree, 1987; Crooks, 1988; Biggs, 1996). As Synder (1971) has observed, student's learning behaviour is, "... influenced not so much by the stated objectives of a course, but what they perceive as the requirements which would earn them credit in the concrete form of marks" (p. 71). Similarly, Chansarkar & Rautroy

(1981), in a study about CA practices at a tertiary level, observed that, when CA was perceived to help to improve grades, students were much less interested in using it as a learning experience. What such observations suggests is that improving students' learning through assessment requires much more than the assessment method. It may require that the decisions made from the assessments are seen, especially by students, to have important significance for the final outcome. Nevertheless, there is evidence that the nature of specific assessment techniques can contribute to the way students go about learning and the outcomes achieved. (see, for instance, Crooks, 1988; Rowntree, 1987).

Crooks (1988) has produced an impressive and extensive review of research into classroom evaluation practices on student learning activities and achievements. His review summarizes results from 14 specific fields of research that cast light on the relationships between classroom assessment practices and student outcomes. Some of the findings derived from this review which are relevant to the discussions in this section are the following:

(a)   Students aim to plan their study with the primary goal of performing well on course examinations and other assessment tasks. However, students often saw this goal as conflicting with the more fundamental goal of gaining a deeper understanding of the subject matter;

(b)   On the whole, student expectations of the cognitive level and content of tasks exert much more influence on their study behaviour and achievement than do their expectations of the task format. (However, here it could be argued that the task format and the nature of the cognitive demand are somewhat related.)

(c)   If students thought the evaluations of their work were not important or did not accurately reflect the level of their performance and effort, they were less likely to consider them worthy of effort.

(d)   On the effects on students of the frequency of classroom assessment, studies show that a moderate frequency of assessment is desirable and that more frequent assessment may produce further modest benefits. However, greater frequencies do not convey much benefit.   (Crooks, 1988; p 444 - 450)

Thus some research suggests that students' perception of assessment - whether it meets their expectations and 'hidden' goals of learning - is an important factor which influences their attitudes and behaviour towards assessment. It also suggests that assessing students very frequently may not actually be beneficial and that the prime benefit comes from judicious use of assessment during a course.

Research into student learning behaviour generally shows two distinctive approaches: "deep" and "surface" (Entwistle, 1985). Deep learning is considered to be an integrative process of reflection and evaluation during engagement with a learning task or assessment, while a surface approach comes without commitment or deep consideration of the learning task or assessment (Gipps, 1994a). Gipps believes that a relationship exists between assessment and the way the subject matter is presented in teaching, which in turn influences what and how students learn, through the tasks they engage in. She argues that in order to encourage deeper levels of learning, more use has to be made of "... intense, even interactive assessment such as essays, performance assessments, small group tasks and projects". Such assessments, according to Biggs

(1996), will require optimal strategies and engage the course content in its higher levels for professional application. Marton & Saljo (1976) carried out classic research about strategies students adopt in understanding issues posed after reading from a range of academic articles. The researchers concluded that learning situations or tasks which emphasize factual information are likely to induce surface approaches to learning, unless greater emphasis is placed on those tasks which encourage deeper and meaningful involvement in the learning situation.

Little (1994) conducted research into school-based assessment innovations and their relationship with motivation and learning in three secondary schools in England. In particular she examined the use of profiles, graded tests and numeracy profile tests in Mathematics. One aspect of her research which is of relevance to this study is the students' views on the impact of assessment on interest in learning. Little discovered that some students traced their interest in the different assessments to tasks which stimulate their effort and over which they have control in terms of pace and style of learning. Others traced their interest to the challenge, variety and interest posed by the content of the assessment items. These findings again, suggests that assessments which encourage deeper student involvement and allow them greater control are appealing for many students (Crooks, 1988; Ramsden, 1992; Entwistle, 1985).

It is reasonable to conclude, from the evidence of research reviewed and the discussions which have followed from them that the following: the format of assessment and its demands, its content and perceived value of its outcome are important variables which can exert considerable influence on students' attitudes and approaches to learning. These are some of the areas that assessment policy and design may need to give

considerable attention to.

The issues discussed in this section raise certain important questions for consideration in this study. For example, what do students in the case study colleges think of their tutors' CA tasks. What do these tasks actually require students to do? What value do students place upon them and how has that influenced their learning and studying approaches?

The nature of the student-teacher relationship within the context of CA practice is another subject of interest for this study and is considered next.

3.6.2. Effects on the Student-Teacher Relationship

Taylor (1969), claims that, because in external examinations teachers and students share a common task in beating the examiner, this facilitates social cohesion and the absence of conflict in the classroom. Kellaghan & Greaney's (1992) study of examination effects in fourteen African countries produced evidence which supports this claim. The study revealed that in some instances, students conspired with their teachers to adopt strategies such as, dictating notes, teaching to the likely examination questions and, sometimes colluding to cheat during the examinations. Here, the desire to succeed at the examinations at all costs became the common goal for both student and teacher and caused cooperation in the relationship (see also Omolewa 1984, for similar reported practices in Nigeria).

On the other hand, school-based teachers' assessment introduces a new set of challenges for classroom interaction behaviour. For example, Taylor argues that the combination of small group teaching with CA provides opportunities for the teacher to

bring influence to bear upon students' intellectual and personal development. It also complicates the interpersonal relationship between teacher and student and encourages the students efforts to make the relationship reciprocally influential. The net effect, Taylor points out, is that some students may attempt to manipulate this relationship to achieve good grades or marks. Rowntree (1987) raises similar concerns. Students, he adds, may decide that a carefully cultivated personal relationship with the teacher can work to their advantage in times of assessment. This is especially so where students feel that scoring high marks in teachers' assessments is critical to their chances of passing an examination or test.

However, such views must be balanced against the responsibility of teachers to help students improve their learning through assessment. Some teachers would find it necessary to cultivate a partnership relationship with students as they assess them, to facilitate their learning and development. They may view and practice assessment as part of their own developing relationship with the student and may wish to emphasise its formative function as part of that relationship. This could however conflict with the judicial aspect of the teacher's role when school-based assessment is also expected to affect the certification of students (Kellaghan & Greaney, 1992). This brings into focus the tension between the summative and formative purposes of assessment which is examined more in Chapter 4.

Richardson (1965), reflecting on continuous assessment experiences with student teachers in what was then the Bristol University Department of Education, captures succinctly the dilemmas of this relationship:

"The closer a teacher's relationship with a group becomes the more painful becomes the task of deciding what the final grading is to be for each member, ... The final decision demands of the teacher a recognition of this dual responsibility. On the one hand he has to fulfill his obligation to the community by giving genuine information about his students' achievements, both actual and potential, to those who will be their employers or colleagues in the future. But he must also fulfill his obligation to his students, by trying to ensure that they understand the nature of these achievements, their promise and their weakness, and - in the rare cases of failure that they are prepared to meet this failure" (p. 56).

The effect of classroom assessment on the student-teacher relationship and how it affects the process and result of assessment does not appear to have attracted much research attention. This is one area where more research is needed, especially since the philosophy of assessment continues to change to favour school-based assessing.

3.7. Studies of the Implementation of Continuous Assessment Schemes

3.7.1 Education Research Literature on Continuous Assessment in Developing Countries: A Problem of Limited Purview.

Many educational systems in Africa are turning to CA as a device for loosening the grip of external examinations with their negative effects on teaching and learning in schools (Pennycuick, 1990; Lewin, 1993). However, there appear to be less research in this area providing detailed in-depth account of the effects of introducing CA. The studies which have been conducted are quite general, and have focused more on the problems of implementation than on specifics of its practice. They have not dealt sufficiently with issues such as the use of assessment as part of the teaching/learning process, how students perceive assessment to be influencing their learning, and some of the performance

90

outcomes due to CA. Many studies too, which have been reported about CA were done in developed countries where the term "teacher assessment" is preferred more to CA (see, for example, Torrance, 1995; Broadfoot, 1995, 1996; McCallum et al., 1995). Also, studies that have reported on the implementation of CA schemes in developing countries have focused on the primary and secondary school levels. My literature search was unsuccessful in yielding published studies addressing assessment practices at early teacher education in developing countries. Accordingly, the review of studies in this section is restricted to the early stages of education, notably the primary and secondary level. These are still relevant to this study since problems in the implementation of CA transcend any particular level of education. For example, issues such as student attitudes to it, problems with combining CA with external examinations, equality and fairness and so on, have been reported at different education levels (see, for example; Dixon & Rawlings, 1987; Chansarkar & Rautroy, 1981; Newble & Jaeger, 1983; Pennycuick, 1990). Thus the review can help to provide a wider picture of the problems encountered with implementing CA and to which this study can relate to.

3.7.2 Implementation of CA in developing countries: A case from Nigeria and Lesotho

Pennycuick (1990) has provided an account of the implementation of CA systems at the secondary school level in developing countries. The account is based on a range of developing countries of different size, wealth and geographical location. (eg. Nigeria and Papua New Guinea). He examined the rationale for the move towards CA and some of the reported evidence of the problems in its implementation. Pennycuick highlighted major problems as: (a) teachers lacking experience of, and expertise in, CA which negates

gains in validity of assessment expected as a result of introducing CA, (b) increased teacher workload with excessive demands on record-keeping and reporting, (c) problems with administering CA in schools including collusion and teacher bias; and, (d) the problem of comparability between classes within schools and between schools.

However, one of the most interesting evaluation of CA practices was by Ali and Akubue (1988). The authors of this study went out in the field to evaluate the nature and scope of activities and problems that have to do with implementing CA in Nigerian primary schools. The subjects of this study were 1,800 primary school teachers and 180 primary school headmasters drawn from a random sample of 180 primary schools. The researchers also contacted inspectors and supervisors of education. An instrument, 'Primary School Continuous Assessment Practices Questionnaire' (PSCAPQ) was designed and used to collect data for answering the research questions. This was developed and validated through face validation and field trial. One limitation of this study was that the researchers did not use on-site observation or interviews. This would have served to provide a more in-depth understanding of practices and pinpoint peculiar characteristics about teachers' use of CA in the teaching and learning process. Such data could have supplemented the survey data and enriched the research findings.

Nevertheless, the evidence obtained from Ali & Akubues' study further adds to the mounting evidence that is beginning to emerge about CA practices in developing countries. The main findings of the study relate to such issues as: (a) poor conceptualisation of CA by teachers and administrative staff, (b) large class sizes which make it difficult for teachers to apply it effectively, (c) lack of standardised instruments for use in CA thus raising problems of comparability, (d) teachers lacking skills for

developing and effectively using (teacher-made) assessments and, (e) the approach to inspection and supervision which strikes fear and panic in teachers and does not provide supportive help to them to implement the practices that constitute CA.

The study also revealed that only 10% of teachers sampled used measurable and clear objectives for teaching and basing assessment tools on such objectives. Furthermore, 90% of the sampled teachers did not develop or use marking schemes for marking assessments. With regard to the government's support in terms of INSET to develop the professional skills in the use of the CA by teachers, the study found that there was a total lack of co-ordination by the Nigerian Federal Ministry of Education. Each separate state interpreted and applied the assessment policy differently. Most responses from the teachers indicated they had never attended any in-service training on the use of specific assessment techniques or the administration of CA. Also the researchers found that most of the sampled states (7 out of 9) continued to focus their attention and practice on one-type examinations (paper and pencil test).

Another interesting evaluation study is that of Sebatane (1985). He conducted an evaluation study on the implementation of the CA scheme in secondary schools in Lesotho. Lesotho is one of the smallest countries in Africa and has a total population of about 1.3 million. The reason for introducing CA was familiar; to encourage better coverage of the curriculum and avoid teachers teaching just for external examinations. Compared to Nigeria, a highly populated country, one would have expected that perhaps it being a smaller country problems of implementation would be fewer and its practice would be more effective.

However, Sebatane (1985) concluded that there was no evidence to suggest that

CA was being practised effectively. Some of the reasons he offered for this were:

(a)   The system of CA was introduced haphazardly and without proper planning;

(b)   There was a lack of clarification of the concept of CA to implementors of the system;

(c)   There was no standard system of implementation, monitoring and control measures and;

(d)   There was no standard format for keeping cumulative records of students' performance. In some secondary schools students' record cards were not available.

                                        (Sebatane, et al., 1985; p. 19)

The study also noted that one of the main problems of effective practice of CA was the problem of large class sizes. Sebatane identified certain concerns of CA practice in Lesotho and enumerated them as: (a) determining the acceptable frequency of assessment, (b) deciding on the degree of centralisation of the system - should it be controlled and administered by schools or in conjunction with the Lesotho Examination Council? (c) deciding on whether the system should apply to assessment of non-cognitive areas as well as cognitive areas (p. 23).

From the findings reported by Ali & Akubue, (1988) and Sebatane, (1985) it can be concluded that the problems that face the implementation of CA are very similar in the two countries. With Lesotho being a smaller country one might have expected that the implementation of CA would have been much easier given the scale of implementation.

However the evidence from Sebatane's evaluation study suggests that it has faced similar problems there and in Nigeria (see, also Nwakoby, 1987). Mainly, these have to do with the lack of any effective planning and monitoring systems, the problem of high student teacher ratio, inadequate conceptualisation, teachers' lack of skills of assessment, and inadequate INSET support. All of these limitations make it very difficult for CA to become an effective means of assessing students.

3.7.3 Implementation of CA in Ghana

Since the introduction of CA into the educational system in Ghana, a number of small-scale studies have been carried out to explore its effectiveness. Mainly, these studies addressed its implementation at the Basic Education level. The notable ones are Pecku (1991) and Akwesi (1994), although Akwesi's is the more extensive and most revealing. Pecku's study focused on the implementation of the CA scheme by primary teachers in the Central Region of Ghana. He was also interested in the teachers' preparedness for the scheme, the training they had been given prior to its introduction, and their evaluation of its effectiveness. Some of his findings were: confusion over the main theme of the new assessment policy - teachers found it difficult to distinguish everyday class assessment from terminal examinations, lack of understanding of CA philosophy, and inadequate in-service training. Pecku's study clearly revealed that teachers felt that the new assessment policy on assessment was insensitive to the realities of their teaching job. In particular, the teachers felt that with the large class sizes they were handling, meaningful CA was not achievable. On the more positive side, the study reported that teachers were in general agreement with the objectives of the scheme as stipulated in the

policy document (Ghana Ministry of Education, 1987). Pecku concluded that the general positive attitude towards CA by the teachers was an indication of the popularity of the scheme and their readiness to carry it out.

Akwesi's (1994) case study of teacher assessment practices in secondary schools in Ghana and Britain provided further insight into some of the implementation problems of CA in Ghana. Using in-depth interviews, he probed into the nature and scope of activities and problems that have to do with the implementation of the CA scheme in five secondary schools in the Central Region of Ghana. His study was significant in that he sought to understand through in-depth interviews the issues from the perspective of those most affected by the scheme, in this case teachers and students. The findings confirmed those of Pecku (1991) but also revealed other critical issues. Some of the findings relating to the management of the change to CA were as follows:

(i)   Some teachers felt that their professional autonomy as well as their personal integrity had been threatened as a result of the introduction of CA. In particular they felt they had not been adequately involved through representation in the initial planning.

(ii)   Negative feelings, frustration and anxiety towards CA had crept in because, teachers felt they had not been given enough information as to the purposes, the functions and the objectives of the new assessment, nor had they been trained in the new skills required to make its use effective.

(iii)   Support from the Ministry of Education and Culture (MOEC) in terms of infrastructural facilities and resources were considered inadequate. Teachers felt abandoned to implement the scheme and, also felt under pressure to meet all of its demands.

(Akwesi, 1994; p. 323-325)

Another finding of interest to this thesis was that several of the teacher assessments still served a summative purpose rather than a formative one. The evidence from the case studies suggested that the summative role of CA had overwhelmed that of the formative role and that the new assessment scheme was still being interpreted in the traditional, highly structured and standardised setting. Akwesi concluded that this was because the teachers had not incorporated the philosophy of CA into their teaching culture.

As, was pointed out in Chapter 1, although CA has been introduced into PSTT in Ghana, there have not been any in-depth and detailed studies about the problems in its use at that level. The studies conducted by Akwesi (1994) and Pecku (1991) suggest that there have been significant problems with the implementation of CA at the Basic Education level in Ghana. This case study evaluation will; examine whether similar problems can be identified in its implementation and practice in PSTT in Ghana, and what measures will be needed to make it effective in that context.

3.8   Summary

The review of issues and research about CA and also issues relating to the use of assessments suggest that the introduction of CA into school systems faces several complex problems. The discussion has highlighted some of these, leading to the conclusion that

to assume CA *per se* would provide answers to problems with examinations, promote learning and improve achievement would be underestimating the challenges it faces. For example, questions about the technical criteria of validity and reliability of CA procedures have to be addressed especially where CA results have high-stakes implications. However, this would have to be weighed against wanting flexibility in the use of CA to promote learning. Furthermore it appears that factors which influence students approaches to learning are not controlled *only* by the teacher. They seem to depend also on, for example, the high-stakes decision implications of assessment results.

Also from the review and discussions which followed, it is doubtful whether CA can promote quality learning if the tutors who control its use are not sufficiently trained in assessment techniques and practice. The issues discussed about the technical criteria of assessment suggest that such training will be needed to maximise the potential of CA for learning and the credibility of its results for high-stakes certification decisions. The discussion on the technical credentials of assessment for use at the school/college level establishes that validity and reliability are the most important consideration in the use of assessment results. Therefore enhancing the overall validity of teacher qualification decisions would mean promoting better administration of assessment and improving the assessment process to capture important qualities of professional learning and achievement. In addition it is important that a system of moderation is developed to promote and maintain assessment quality within and across colleges so that CA is seen as fair and credible from the social accountability perspective.

Group/consensus moderation appears to be vital in promoting the social accountability of CA and has the potential to provide rich opportunities for the

professional development of tutors, especially for developing competence in assessment. However it faces technical, operational and cost problems which would need to be resolved at both the policy and practice levels.

Finally, the research about the implementation of CA in developing countries, including Ghana, suggests that there has been a wealth of difference between its planned operation and the practice in reality. The review highlighted major problem areas that have contributed to this happening such as inadequate conceptualisation by teachers and inadequate structural and administrative support.

CHAPTER 4

FORMATIVE ASSESSMENT: ISSUES FOR THE TEACHER TRAINING CONTEXT

4.1. Introduction

This chapter is a review of the literature covering the formative use of assessment from both theoretical and practical perspectives. Issues in the educational assessment literature about formative assessment are examined and implications for the teacher training context are drawn. The formative versus summative distinction and tensions are issues at the heart of debates about teacher assessment or CA and are addressed in the early parts of the chapter. The chapter begins by examining the nature of some of the tension between summative and formative functions of assessment as they might occur in a teacher training context. In the last section of the chapter the literature on profiling and its potential to perform a variety of formative and summative functions is examined. Finally, the literature on profiling in teacher education is examined and their implication for practice in Ghana is explored.

For the teacher training reformers in Ghana, the introduction of CA at PSTT was intended to achieve two purposes. First, it was to shift assessment from a predominant summative focus to a formative one. Secondly, it was intended to use assessment to give emphasis to the practical and professional areas of teacher training, which until then had been given little attention because of the constraining effect of the external examinations. (See Ghana Education Service/Teacher Education Division, 1992). Therefore the issue

of formative assessment for promoting professional learning and development lies at the

heart of the move to introduce CA into PSTT in Ghana (see, Chapter 1). The review of

the literature on formative assessment and related issues is intended to provide valuable

insights into that.

4.2 Formative-summative assessment tension in Teacher Training

Calderhead (1988) has pointed out that:

"teacher education courses have sometimes conformed more .to a certification process than a genuinely professional learning process. Student teachers have learned to demonstrate a narrow range of contrived competencies in order to be favourably assessed and certificated as a teacher". (p.10)

Furthermore Calderhead asserts that many constraints within the academic and

professional environment will continue to pressure teacher education courses into

producing certification rather than learning experiences. One such constraint is the

emphasis on statements of expected teacher competencies, or external examination

requirements, found in the British and Ghanaian teacher education systems respectively.

In the case of Britain for example, the official model of teacher assessment requires certain

defined competencies to be met before certification (DFE 1992). This model of teacher

assessment has been criticised by many teacher educators. In particular, the British

Educational Research Association Task Group on Teacher Education have been

concerned that the defined competencies lack diagnostic potential. They also argue that

the model fails to provide guidance on how the listed competencies are to be developed

(BERA 1992). Bridges et.al., (1995) point to evidence from case study accounts that

many teachers and teacher educators are critical of the model because it does not reflect a developmental perspective of professional training. Many teacher educators therefore consider it inappropriate for teacher education to use the construct of assessment in which the primary focus is on summing students' achievement, with little to show for how formative assessment contributes to that. The main contention appears to be that a summative focus which is geared purposely to measure predetermined standards, does not fit well with a philosophy of teacher education based on formative development and reflective practice (Moon & Mayes 1995).

The tension arises partly because of differences in the expectation of assessment. As Black and Broadfoot (1982) point out, educators primarily require information for internal decision purposes but, "third" parties are more interested in information for accountability and selection. This creates tensions in the practice of assessment.

Often in CA the attempt is to use it for both formative and summative purposes (see Chapter 3). The key issue, as Wiliam and Black (1995) point out, is not whether formative and summative assessment can operate concurrently or whether one can become the basis for the other. Instead, it is the extent to which one function can adversely affect the other in any close association which is the problem.

Sadler (1989) argues that the principles upon which summative assessments operate differ significantly from that of formative assessment and the former has the potential to corrupt the latter. Fairbrother (1995), for example, illustrates this problem in an experimental teaching situation with pupils in which he tried to attach a formative activity onto a summative test. He reports that this failed mainly because the pupils appeared not to know how to merge the two and also because they were more concerned

with the outcome of the test. Here, interest in the high-stakes outcome of assessment appears to have curtailed an interest in formative evaluative activity.

To alleviate problems and tensions of a similar nature in the initial teacher training context, some advocate that formative activity should rather drive the assessment process and provide a path for summarising general performance. Many teacher educators believe that a profile approach to assessment can perform this dual task efficiently (eg. Murphy et. al., 1993; Whitty 1994). However, Hitchcock (1990) has advanced arguments to suggest that it is much more difficult to combine formative and summative assessment into one unified profile system. These issues will be examined later in the section on profiling.

The next two sections examine more closely the nature of the formative and summative tension of assessment, in teacher education in Ghana and Britain. The purpose is to highlight some of the tensions of assessment more vividly.

4.2.1 Formative and Summative Assessment Tension in Post-Secondary Teacher Training in Ghana

As explained earlier, one reason for introducing CA into ITT in Ghana was to give more attention to formative evaluative activity which had been considered missing in teaching and learning discourse, mainly due to the established culture of external examinations. However CA is expected by education policy makers in Ghana to reflect a cumulative process of achievement that feeds into the final external examination and classification of the student (Ghana Ministry of Education, 1987). In other words, it is still expected to contribute marks for use with the external examinations to arrive at a final pass or fail grade as well as perform a formative function. It could therefore be argued

to be susceptible to the tensions and constraints associated with a unified assessment scheme intended to foster both formative and summative practices (Wiliam & Black 1995). What is lacking emphasis in the official CA guideline document is the purpose for which results of tutor assessment can be put besides providing data for certification purposes. An undue focus on marks and grades could inhibit the use of assessment to address learning-related problems (Gipps, 1994a; Sadler, 1989). It could also lead to less attention being given to other effective means of carrying out feedback. Black and Dockrell (1980) for example reported, from a study about the practice of CA, that feedback often came as a general attainment grade instead of information about strengths and weaknesses. This left CA with little to offer towards improving specific learning difficulties. It is important to point out that the process of carrying out intermittent exercises or assignments does not by itself constitute formative assessment. On the contrary, it is whether assessment methods provide an opportunity for remedial action and subsequent improvement that matters (Wiliam and Black 1995). Also, Sadler (1989) argues that,

> "Continuous assessment cannot, ... function formatively when it is *cumulative*, that is, when each attempt or piece of work submitted is scored and the scores are added together at the end of the course. This practice tends to produce in students the mindset that if a piece of work does not contribute towards the total, it is not worth doing." (p.141)   .

This could undermine the value of informal yet important teacher assessments which are intended to give feedback to a student about progress in learning. The effect, as Sadler points out, is that students may undervalue such assessments because they do not attract formal grades or marks as others do.

According to Moon & Mayes (1995) it is important to integrate values into the assessment of student teachers in initial teacher training. They state:

> "The incorporation of a values dimension, focusing on professional qualities, ... ensures a holistic approach to assessment and one that emphasises the unique significance of preparing for entry into a profession" (Moon & Mayes 1995, p.240).

Certain important professional values may however fail to receive attention from students and tutors if the only assessments acknowledged and credited are those that can be easily graded or marked numerically. It would be important from the professional learning point of view, for students to see that qualitative judgements about certain professional qualities make an important contribution to the overall evaluation about readiness to begin teaching. Scoring all assessment performances within PSTT in Ghana only in terms of marks could lead some students into thinking that high scores mean that one possesses the ability to teach effectively, and low scores mean the opposite.

It needs pointing out that grading practices advocated in the CA guideline document is in line with the main external examination grading system. This appears to be the source of its constraints. The policy guidelines on CA in PSTT in Ghana makes the attempt to "kill two birds with one stone". In other words, it is expected that not only is CA going to promote formative learning opportunities but it will also provide marks to be used in part to certify qualification.

Though the philosophy of CA may be primarily formative, it can still risk becoming another form of examination system that produces the same undesirable backwash effect on teaching and learning as formal examinations. As Black & Broadfoot (1982) warns,

teacher assessment (or CA) can become "a staccato form of the final examination" (p. 34) especially if it leaves no time for remedial action. It is evident from the official guidelines for CA practice in PSTT in Ghana that assessing and recording students professional learning within a formative framework was not considered. Black & Broadfoot (1982) point out that an assessment policy which focuses primary attention on marks or grades can present obstacles for teachers who want to introduce alternate assessment procedures that are essentially formative.

One of the tasks of this thesis was to explore whether the practice of CA was providing opportunities for learning-related feedback from assessment. Another was whether tutors in the case study teacher training colleges were using the information from CA to guide teaching thus foster formative use of assessment.

4.2.2. Formative and Summative Assessment tension in ITT in Britain.

In Britain, continuous assessment with a formative intent characterises many of the forms of assessment used in teacher training, but also doubles as a progressive measure of professional competence. In other words the process cumulates into a summative evaluation of professional competence. This practice takes its source from initial teacher training reforms.

> Higher education institutions, schools and students should focus on the competences of teaching throughout the whole period of initial training. The *progressive development* (italics mine) of these competences should be monitored regularly during initial training. Their attainment at a level appropriate to newly qualified teachers should be the objective of every student taking a course in initial training (DFE, 1992).

With the aim of securing national standards of vocational competence throughout all occupational sectors (Hyland, 1994), clear and transparent criteria were developed for use in training institutions. Institutions were, however, free to reformulate these criteria to suit their particular assessment policy. Some teacher educators though perceive a gap between the whole construct of assessment articulated as levels of professional competence (ie. with summative intent) and their own construct of teacher education, which is formative and developmental (Bridges et al., 1995; BERA, 1992). The problem, it seems, is not simply reinterpreting the standards criteria to fit a particular assessment policy or vice-versa. Instead, it is whether the competence criteria should represent the framework for the development of the student teachers' professional learning. Some educators are concerned that the developmental approach to teacher education, to which formative assessment plays a crucial role, will eventually be stifled by an undue concern with outcomes or achievements (see McNamara 1992; Carr 1993). This is a contentious issue within teacher education in Britain and other educators such as Tomlinson (1995) are more optimistic. Tomlinson sees several virtues in an outcomes approach but argues that this has to be operationalised within the framework of functional analysis rather than behaviour prescription. He believes that the functional analysis framework can encourage formative and developmental activity, rather than lead to prescribed behaviour that would encourage the practice of ticking off competences as present or absent. The contentious issue is: should assessment in teacher training aim primarily at measuring defined levels of professional competence, although this may be based on a progressive development of teacher competencies? Alternatively, should it be part of a less restricted and holistic professional development process? Though some educators argue that both can occur

within the context of training (eg. Tomlinson 1995), others are more sceptical and advocate more emphasis on the holistic approach (eg. McNamara 1992). The concern is that a measuring process could lead to achievement-focused assessment and eventually encourage summative judgements to the detriment of formative evaluative experiences. These issues therefore underline a latent tension between formative and summative functions of assessment in ITT in Britain.

It is reasonable to conclude that the formative versus summative tension in assessment in ITT has become acute because of fundamental differences in assessment constructs. In Britain, it appears that teacher educators seek more of a formative and developmental perspective of assessment, while official construct seems to be more summative in focus. In Ghana, the official requirement to provide marks from CA for use externally means that invariably the assessment system will have a summative focus. I have argued that this could adversely affect a genuine commitment to formative assessment procedures that are beneficial to the professional learning process.

The next section, will examine the dynamics between the formative and summative functions of assessment and the manner in which that interaction can influence the learning process.

4.3. Evaluation of the Relationship between Formative and Summative Functions of Assessment

Two alternatives have been advocated for relieving the tension between formal formative and summative assessment. One is separating them so that they operate under different circumstances and time because of the view that it is difficult for the two to

coexist effectively (eg. Harlen et al., 1992). The other is focusing entirely on an assessment process which is formative in orientation and drawing information in the course of this process, by selection or aggregation, for summative purposes (Black 1993). The force of the argument here is that it is only in this way that formative assessment can be protected from the overwhelming powers of external 'high-stakes' assessment. Nevertheless, Black points to two problems this orientation can pose. One is that it can give rise to tensions between the advisory role and adjudicatory role of a teacher. The other is that it is difficult for a formative framework for assessment built into the teaching and learning process to give the final outcome picture of a students' achievement that would be fair and reliable. In other words, the use of formative assessment to derive summative evaluations of achievement may lack the kind of reliability expected from 'objective' methods of assessment. The other alternative of separating the two functions of assessment so that they operate distinctly still leaves unanswered how the summative function can be prevented from swamping formative work (Black 1993).

Wiliam and Black (1995) prefer to see assessment as a continuum at the ends of which lies the two functions of assessment, with a particular function invoked as and when it is required. They explain that:

> At one extreme (the formative) the problems of creating shared meanings beyond the immediate setting are ignored: assessments are evaluated by the extent to which they provide a basis for successful action. At the other extreme (summative) shared meanings are much more important, and the considerable distortions and undesirable consequences that arise are often justified by appeal to the need to create consistency of interpretation (p.7).

The writers also argue that not all evidence generated from summative assessment can serve a formative function. They add that the concerns for shared meanings for teacher

109

assessments, with consequent requirements for teachers to document their work so that moderation can take place, may serve to limit the extent to which records of students achievement can serve formative functions. Wiliam and Black are of the view that assessment events or activities can be designed to yield information which could have summative or formative consequences. However, they argue that benefits from the 'continuum' philosophy are to be found in the separation of interpretation of evidence from its elicitation, and the consequent actions from the interpretations.

Rowntree (1987) takes a slightly different view. Though he sees that the distinction between formative and summative assessment "is not to be seen in the *form* of the assessment but, ... in the *intentions* and interpretations of the assessor" (p.122), he believes that, whatever form an assessment takes, it can benefit the learner by revealing areas for further improvement. A similar view is shared by Nitko (1996). However, Black & Dockrell (1980) point to empirical evidence suggesting that learners often make little use of certain assessment information. Thus, from the point of view of the learner, not all assessment information may be useful for promoting learning. (This issue is examined in more detail later in the chapter). What seems important is the extent to which the information generated from assessment lends itself to use for further improvement. Both Rowntree and Nitko focus their interest on whether the information from assessment is useful to the teacher in getting to know the student better, or whether that information helps others feel better informed about the student. By this view, they shift the focus of formative assessment from what the student perceives it can do for him/her to how the teacher can use it to help the student. Blanchard (1992) has argued that the design of formative assessment needs to be centred around the learner, and therefore self and peer

assessment needs to be the main thrust of such assessment.

From the discussions in this section, there can be no doubt that significant tensions are created when assessments are required to serve both formative and summative functions. Yet, where the paramount purpose in education or training is to improve performance, it would appear that the formative function of assessment should take precedence over summative considerations. One factor, though, which could mitigate against the successful impact of formative assessment on learning is the use to which the information gathered is put. If it is largely to help the learner, then the opportunity exists for it to be useful for learning improvement. However, where the information so gathered is intended for a high-stakes setting, then the extent to which it can also serve a formative function becomes limited. It is also clear from the discussions that it is far from easy to achieve effective formative assessment when summative considerations are a serious part of the assessment agenda.

The next section examines two perspectives of formative assessment described by Torrance (1993) and draws implications for promoting student teachers' professional learning.

4.4 Behaviourist and Constructivist Perspectives of Formative Assessment and their Implication for Professional Learning.

Torrance's (1993) view about formative assessment is useful to consider in seeking to understand forms in which assessment activity can be practised to affect the professional learning process. Torrance suggests two theoretical perspectives of formative assessment - the behaviourist and the constructivist perspective, and argues that

most models of formative assessment fall in either of these two categories. The behaviourist perspective he criticises as "exceedingly mechanistic" and as being composed of: short-term goals, clear assessment objectives and detailed feedback on what has or has not been achieved, and what must be done to improve subsequent performances. Pryor and Torrance (1995) have referred to this approach as 'Convergent Teacher Assessment' where the teacher's emphasis is on finding out if the learner knows a *predetermined* thing. Obviously, this would be inappropriate for teacher education, given the holistic and complex nature of the professional learning outcome (Stones, 1994). Complex learning outcomes, Sadler (1989) points out, require judgements to be based on degree of expertise and not on 'correct or incorrect' outcomes. Even if students' exhibited practices or methods are considered 'professionally incorrect', context is an issue which needs serious consideration in arriving at such judgements. This stems from the idea that professional action is always sensitive to context (Schon, 1983) and that, therefore, judging it needs to take into consideration the interpretation or understanding of context. Consequently, it is worth engaging in assessment activity which permits students to divulge reasons and motives behind practices or perceptions about teaching, because of the value of reflective practice in teaching (Schon, 1983).

The constructivist perspective, Torrance points out, focuses on creating an environment for assisting the learner to comprehend and engage in new ideas and problems. Essentially, it is an active *collaboration* between the teacher and learner to improve performance (Wood 1991). Therefore, it is closer to the conceptualisation of formative assessment as a process for helping the learner develop their own learning skills. It reflects the view of formative assessment as a tool for developing metacognitive

processes of learning (Gipps, 1994) - (This is discussed further in section 4.5.2). Pryor and Torrance (1995) have referred to this as 'Divergent Teacher Assessment' with characteristics as illustrated in Box 4.1. below. This approach addresses two important questions about teacher assessment which are:

- what form of assessment is needed to properly reflect students' learning?

- what form of assessment should be used to ensure a beneficial impact on teaching and learning practice? (Gipps, 1994; p.27).

Both Gipps and, Pryor & Torrance point out that a model of assessment that reflects Vygotsky's idea of the 'zone of proximal development' (ZPD) might provide answers to these issues. Essentially, Vygotsky's ZPD refers to the gap between the unassisted performance level of the learner and his/her potential level displayed under more capable guidance which could come from either the teacher or peers (Gipps, 1994a). Here, the guidance is provided not in prescriptive terms but as a form of *collaborative* support. Under this conceptualisation, assessment is seen as being accomplished jointly by the teacher and student with the needs of the student determining the form and focus of the formative activity (Pryor & Torrance, 1995).

Torrance (1993) has referred to some studies in a non-formal educational setting, relating to the constructivist perspective of formative assessment which appears to suggest that it can have a positive influence on learning. At this stage, there is a lack of hard empirical evidence to suggest the same for initial teacher training. Nevertheless, the requirements of the professional learning process would suggest that the constructivist

DIVERGENT FORMATIVE TEACHER ASSESSMENT

Teacher Assessment in which the important thing is to find out what the child knows.

This is characterised by:

Practical Implications

a.   less detailed planning
b.   open forms of recording (narrative, quotations etc.);
c.   an analysis of the interaction of the learner and the curriculum from the point of view both of the learner and of the curriculum;
d.   open questioning and tasks;
e.   a focus on miscues - aspects of learner's work which yield insights into their current understanding;
f.   descriptive rather than purely judgemental evaluation;
g.   involvement of the child as initiator of assessments as well as recipient.

Theoretical Implications

h.   a constructivist view of education;
i.   an intention to teach to the zone of proximal development;
j.   a view of assessment as accomplished jointly by the teacher and the pupil.

This view of teacher assessment could be said to attend more closely to contemporary theories of learning and accept the complexity of formative assessment.

Source: Pryor & Torrance (1995)

perspective is probably the most appropriate for teacher training. Here the need is for the student teacher to engage in a process of reflective development where methods, procedures and processes are constantly under review to respond to the contingent nature of teaching and other related issues (Schon 1983). A constructivist perspective of formative assessment could therefore allow student teachers to take more responsibility for their own professional learning and, by that, promote their ability to improve their teaching knowledge and skills.

Torrance also warns of the danger of formative assessment either becoming fairly mechanistic or, at worst,

> "... essentially *summative*, taking 'snapshots' of where (learners) have 'got to', rather than where they might be going next, with the emphasis on the conduct of more controlled and reliable test situations, and gathering of evidence for third parties" (p.340).

This warning is relevant for initial teacher training, particularly in Ghana where CA, conceived as a formative process is nevertheless expected to generate marks for external consumption. The crucial question is, is it possible for this to be done successfully? There are good reasons, as discussed in the previous section to suggest that this may be difficult to achieve in practice. Research information that helps us to understand the nature of the constraints of summative assessment on formative assessment is needed. From such understanding it may be possible to suggest ways of making the practice of CA functionally more formative. These are some of the goals of this thesis. An important purpose of the thesis was to understand in more detail how CA is being practised and recommend ways for improving it to minimise distortion to its formative function.

4.5. Using Formative Assessment to Improve Learning

One of the reasons why formative assessment is often considered crucial to learning, is the belief that it can be used to monitor and also provide guidance for growth in learning development. From the teacher training point of view, it is important to examine more critically what the characteristic features of formative assessment are and the ways in which it can in practice provide opportunity for improving professional learning.

Formative assessment is conceptualised in the literature under two-main functionary frames. One is as a mechanism for monitoring the progress of teaching and learning. Here it is considered as a diagnostic tool which the teacher uses formally or informally to gather information about weaknesses in students' learning (Rowntree 1987, Harlen et.al., 1992, Nitko, 1996). The other function is rather subtle and of a more complex nature which is as a device for developing 'deep' learning approaches (Fairbrother 1995; Ramsden 1992; Gipps 1994; Nitko, 1996). A 'deep' approach to learning is one in which the learner is encouraged to internalise what is learnt, producing greater understanding. It is brought about through closer involvement of the learner with the learning situation or assessment task (Blanchard 1992). The idea is for assessment to develop in the learner more effective and efficient ways of learning.

In what follows, these two functionary frames are discussed (section 4.5.1. and section 4.5.2.) in greater detail, examining the ways in which they might be useful in the teacher training setting.

4.5.1. Formative Assessment: Monitoring the Learning Process for Improvement.

More generally, formative assessment has been conceptualised as involving the use of assessment information to feed back into the teaching/learning process to improve it. This information may be structured for use by the teacher or the student depending on its intended purpose. Thus, it can become a mechanism for informing curriculum planning (Gipps 1994a), and monitoring learning by providing information for teaching decisions (Harlen et al., 1992). Harlen et al., stress that often this occurs quite informally and unnoticed in the classroom, but argue that formative assessment has to be embedded in the structures of educational practices to ensure its effectiveness in improving learning. In effect, the monitoring and improvement to learning have to become purposive rather than incidental, and as they put it, done with "rigour and reliability" to make it effective. They also suggest that a formative assessment scheme that would ensure maximum effect on learning must have the following characteristics. It has to be,

(a)   gathered in a number of relevant contexts;

(b)   criterion-referenced and related to a description of progression;

(c)   disaggregated, which in this context means that distinct aspects of performance are reported separately and there is no attempt to combine dissimilar aspects;

(d)   shared by both teacher and pupil;

(e)   a basis for deciding what further learning is required;

(f)   the basis of an on-going running record of progress.

Although Harlen et al., were writing with reference to using formative assessment to improve pupil learning, much of what they suggest can find application in the teacher training setting, after a few modifications. Apart from the second point (b) above, which will be incompatible with the more contingent and holistic nature of professional practice, much of the above has relevance for the teacher training context. What is rather doubtful as far as ensuring an effective impact on learning is concerned, is the suggestion that formative assessment has to be applied in a precise manner. It raises many questions such as; what risk is there for formative assessment to be mechanistically operated if its practice is more structured?, and what is lost or gained by this? Also, should formative assessment be used for its own sake or, should it be used as a means to an end? In other words, should it primarily serve the needs of learning and therefore be flexible and less prescriptive? On the other hand should it be a means for providing a cumulative record of achievement and therefore require more 'rigorous and reliable' procedures for accountability reasons?

Blanchard (1992) is dismissive of the idea of 'rigour and reliability' in formative assessment as a means of effecting positive impact on learning, because it suggests an objective model that alienates the student from participating in the assessment process. He argues that an essential feature of formative assessment is that it takes into serious consideration the students' role.

> A student's learning depends on her/his coming to recognise and act on the reality of situations within which s/he operates: where no single set of criteria is likely to be absolutely, universally valid; where different criteria serve different interests and ends; where criteria change in the light of experience. Improving one's criteria constitutes learning: without the critical revision of the means by which one judges quality of performance

one cannot make use of one's learning (p.117).

Thus, for Blanchard, an emphasis on rigorous procedures for reliability in formative assessment can reduce the opportunity for the learner to be actively involved in his/her own learning development. This involvement requires flexible criteria to address the changing needs of learning. The student's agency as well as diversity and dynamism in criteria are, in Blanchards view, essential features of a formative assessment that has the potential to improve learning. He concludes by suggesting that the possible consequences of this approach to the formative uses of assessment are as follows:

- the student's revising his/her own criteria and the grasp of other's criteria;

- the student's choosing alternative criteria by which to assess past or future performances;

- the student's redirecting his/her efforts;

- the student's concluding his/her efforts;

- the student's choosing the next step to take if the performance is to be sustained. (p.119)

The nature of student teachers' professional learning suggests that such consequences of formative assessment are probably the most desirable for teacher training. However as pointed out earlier, where an appreciable interest in summative evaluation of performance exists, the extent to which this can happen may be called into doubt. Blanchard's model may be useful for professional learning if formative activity is not geared towards recording performance for 'checking up' purposes, but for summing up formative learning

in, for example, profile format (Harlen et al., 1992). The use of profiling to serve a formative function is discussed later in the chapter.

Also, objectifying formative assessment in teacher training may have undesirable consequences on the professional learning process. For instance, as discussed earlier, professional teacher development requires usually judgements that reflect the complex nature of professional learning. There can be a danger of this becoming mechanistic if such judgements have to operate within a tightly defined framework of formative assessment. Another reason a tightly defined view of formative assessment would not be beneficial to a teacher training setting is the possibility of stifling an active involvement of students in their own assessment. This becomes even more important if the training programme aims to produce teachers who are capable of monitoring and improving their own practice through critical self-appraisal. In this case students will need considerable share in assessing their own progress and in developing an awareness of the importance of doing so in actual teaching situations. Within the teacher training context therefore, a lot can be said for a formative CA scheme that will operate *flexibly* but *purposely* in the professional learning process.

4.5.2. Formative Assessment and Metacognition

Formative assessment has also been conceptualised as developing 'internally', the capability to learn effectively by a variety of means and to plan one's own learning strategies. In this instance, feedback from formative assessment becomes a means by which learners learn to manage and control skills and knowledge required in competent practice (Fairbrother 1995, Sadler 1989; Butler & Winne, 1995). This is essentially a

process of developing metacognitive learning skills. Metacognition is basically developing the ability to manage and control ones' own learning through a process of adaptation and change. According to Gipps (1994a) "access to metacognitive processes ... can come from a process of guided or negotiated self-assessment in which the (learner) gains awareness of his/her own learning strategies and efficiency" (Gipps 1994a, p. 28). Similarly, Nitko (1996) points out that in this mode students are empowered to guide their own learning and that by frequently applying standards and criteria to their own work they internalise them. There have been questions raised about which type of students are capable of developing metacognitive learning skills and under what classroom conditions it can be nurtured and made effective.

For teacher training, metacognitive learning processes could be considered a particularly useful way of thinking about formative assessment as the learning process entails the complex interrelation of theory with practice (Calderhead 1988) in which an awareness of when and how to adapt acquired skills, is important for good teaching. Thus, quite apart from formative assessment providing a means for monitoring learning and teaching development, some educators argue that, it should be about helping the learner learn how to learn (Fairbrother 1995). Formative assessment in this context then provides the student the opportunity, through a planned and progressive programme, to develop skills of learning how to manage ones' learning for maximum efficiency and effectiveness. In teacher training, this could mean the use of feedback to promote learning how to learn teaching from learning experiences encountered during professional training (Korthagen 1988). In effect, this mode of formative assessment offers the student the opportunity to develop his/her own way of managing the needs of professional learning.

It is a conceptualisation of assessment which epitomizes the principles of reflective practice with the emphasis on enabling self-directed growth in professional learning and development (Schon 1983; Calderhead, 1988). One could argue, therefore, that formative assessment in the teacher training setting has to have as its focus the progressive development of the student's own critical evaluation of his/her professional learning.

Sadler (1989), has also stressed the central role of the learner in providing feedback for his/her own professional development. Sadler believes that to improve learning, the learner has to come to hold a notion of quality similar to that of the teacher to be able to monitor consistently the quality of that learning and also to possess a store of alternatives upon which to draw. This essentially distinguishes between 'internal' and 'external' feedback, the former called self-monitoring by Sadler (1989).

> If the learner generates the relevant information, the procedure is part of self-monitoring. If the source of information is external to the learner, it is associated with feedback. ... The goal of many instructional systems is to facilitate the transition from feedback to self-monitoring (Sadler 1989, p.122).

Sadler sees information from formative assessment as coming from either the learner or an external source, but argues that, ultimately, feedback should become information for self-monitoring of learning. Butler and Winne (1995) advance a similar view in an article on feedback and self-regulated learning. They point out that the simplest and most common type of feedback is *outcome feedback*, sometimes labelled knowledge of results. Outcome feedback carries no additional information about the task other than its state of achievement. Hence, they argue that outcome feedback provides minimal external guidance for a learner about how to self-regulate. Alternatively, feedback can be

elaborated to supply several different types of information in place of or in addition to outcome feedback. Butler and Winne stress that to better guide learning in authentic complex tasks, feedback should provide information about cognitive activities for learning. This perspective presents formative assessment not only as a tool in the teachers hands for diagnosing problems of learning, but also as a means by which students develop their own means of managing and controlling their own learning. The assessment process in itself provides insights into ways of learning to learn better and as a result, students become more effective and efficient in handling problem situations. For this to happen efficiently, Sadler (1989) believes that three things must occur. The student will have to:

(a)   possess a concept of the standard (or goal, or reference level) being aimed for;

(b)   compare the actual (or current) level of performance with the standard;

(c)   engage in appropriate action which leads to some closure of the gap.

(Sadler, 1989; p. 121)

Thus, for Sadler, students can be helped to develop their evaluative knowledge through direct and authentic evaluative learning experiences. However the conditions under which this can occur and how exactly the teaching and learning process can utilise assessment to help students guide their own learning is still open to question (Nitko, 1996).

In summary, formative assessment has an important role to play in the professional learning process of teacher training. Its role, it appears, needs to be more than providing information on teaching and learning development from external sources, for example from the tutor. Instead it will need to transcend into a 'broader context' of reflective

123

practice', characteristic of professional action (Schon, 1983). The reflective inquiry view of professional action has been discussed by many writers (see, Schon, 1983, Korthagen 1988) with implications also for the role of formative assessment in teacher training. Through this process, as Korthagen explains;

"... the student teacher learns with the help of the supervising teacher educator to make use of *internal feedback* based on his or her own experience" (Korthagen 1988, p. 37)

According to Korthagen, because it is impossible to prepare prospective teachers for every professional situation they may be confronted with during their careers, it is important to train them to reflect on their experiences and also to be conscious of their own professional development. Essentially the reflective practice model as explained by Schon (1983), "... endeavours to develop in (the prospective teacher) the ability to discover new methods ... to deal with situations of uncertainty, instability, uniqueness, and value conflict" (p. 50). Schon points out that the effective application of specialised knowledge is part of a process of reflection-on-action that involves "... tacit knowledge, judgements and skill performances" (p.50).

To foster this perspective of professional practice in teacher training, formative assessment then, would have responsibility for developing reflections on understandings implicit in professional action or professional learning situations: understandings which the student "... surfaces, criticises, restructures, and embodies in further action" (Schon 1983, p.50) to make professional skill and knowledge development sensitive to contexts and situations of professional learning. Consequently, the function of formative assessment becomes extended beyond teacher judgements about student progress to a

124

stage where students are given greater responsibility for managing their professional learning under tutor guidance. Therefore within teacher training, it would appear inadequate to conceptualise formative assessment simply as a mechanism for the tutor to diagnose weaknesses in student learning for purposes of remedial action, although this has some value in certain contexts of assessment. The reflective inquiry dimension of professional learning opens numerous possibilities for how formative assessment can be used in teacher training. One such possibility, as has been stressed in this thesis, is using it to help develop in the student teacher the ability to manage growth in professional learning. By this, formative assessment shifts from simply becoming a tool in the hands of the tutor to direct students learning, to being a means by which students develop skills of monitoring their professional learning and development.

Two important issues raised by this perspective of formative assessment are the kind of feedback that can promote growth in teaching capability and the philosophy behind such feedback. This forms the subject of the next section.

4.6.   The Feedback Function of Formative Assessment.

One benefit often ascribed to formative assessment is that as an assessment process it has great potential in providing feedback about the effectiveness of teaching and learning. A benefit for students is thought to be that the formative process provides meaningful detailed feedback concerning their performance, also informing them of strengths and weaknesses and providing guidance towards future learning targets (Butler & Winne, 1995). Similarly, Gipps (1994a) considers feedback to be important for two reasons. First it contributes directly to progress in learning by informing students of

125

achievement relative to goals and secondly, this produces an affect on the learner's academic self-esteem. It is therefore considered an essential part of any progress in learning (Bangert-Drowns et al., 1991; Schunk & Cox, 1986).

The correction function of feedback is often considered to be the most valuable to progress in learning. Feedback in that function,

"... confirms correct responses, telling the students how well the content is being understood, and it identifies and corrects errors - or allows the learner to correct them. This correction function is probably the most important aspect of feedback ..." (Kulhavy, 1977, p.229 quoted in Gipps, 1994a).

This correction function was clearly envisaged by the introduction of CA into the educational system in Ghana (Ghana Ministry of Education 1987). According to the guidelines for its operation at the teacher training level, CA was to " ... provide continuous feedback to the student and the teachers for corrective action to be taken towards improvement of performance" (Ghana Education Service/Teacher Education Division 1992). The need for feedback to provide information for corrective action also raises issues about the appropriate form that feedback should take to ensure corrective action, and the conditions under which it can provide maximum impact on improving performance. These issues are considered in the next two sections.

4.6.1. Types of Feedback and their relative usefulness to Professional Learning

Rowntree (1987) distinguishes three forms of feedback each with varying degree of usefulness as far as improving learning. In its least useful form it comes as a mark or grade, which may inform students as to how the teacher views their progress. Another

126

kind of feedback is the knowledge the student gains about whether an expected standard has been reached or not. These two are however of the kind that often results from summative assessment and could therefore be argued to be limited in directly impacting the learning process. A third feature of feedback is verbal or detailed written comments. As Rowntree puts it, this kind of feedback "flows from diagnostic appraisal" (p.26), and therefore is more directly related to specific learning experiences. This kind of feedback is of considerable importance to the professional learning process. Teachers' practical knowledge takes into account context, roles and relationships, and is therefore fundamentally relational rather than instrumental. Consequently the kind of feedback relevant to professional learning and development is one based on a critical appraisal of performance by both teacher and student, and aimed at pointing forward ways for further improvement.

Applied to developing student teacher professional learning, it could be argued that feedback information should provide information on *why* a particular performance or activity is appropriate or inappropriate, instead of what must be done in prescriptive terms. In other words, 'what must be done' needs to reflect context and situation so that it preserves the contingent nature of professional practice. This is in line with the constructivist perspective of formative assessment and also the reflective development philosophy described earlier. In effect, the feedback has to focus on ways of *enriching* performance or teaching ability. Similarly, Maingay (1988) argues that for feedback to be useful for training and development in the initial teacher training context, it has to be written or oral and not be judgemental or directive. It should according to him, focus on the trainee's awareness of alternatives and of principles behind teaching behaviour.

4.6.2. Feedback as 'gap closure'

Another dimension of feedback conceptualised by Ramaprasad (1983) is gap closure. He defines feedback as "information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way" (p.4). Sadler (1989) notes that:

> "An important feature of Ramaprasad's definition is that information about the gap between actual reference levels is considered as feedback *only when it is used to alter the gap*. If the information is simply recorded, passed to a third party who lacks either the knowledge or the power to change the outcome, or is too deeply coded (for example, as a summary grade given by the teacher) to lead to appropriate action, the control loop cannot be closed, and "dangling data" substitutes for effective feedback (p. 121, emphasis in the original)"

Thus, formative functions of assessment are validated in terms of their consequences as much as their meanings (Wiliam & Black, 1995). This is an important conceptualisation of feedback because it eliminates information from assessment which is not learning-related and does not provide clear insights into what should happen as a result of the assessment. In other words, validity of the feedback from assessment reflects "... the *adequacy* and *appropriateness* of *inferences* and *actions* based on (assessment) scores or other modes of assessment" (Messick, 1989 p. 13, italics in the original).

Ramaprasad's notion of feedback clearly focuses on the need for clear communication of standards being aimed for, but it also emphasises feedback as information for action. In other words, for feedback to qualify as such, it needs to be referenced to a standard and result in bridging the gap between actual performance and an accepted standard. Gipps (1994a), describing Sadler's work on formative assessment

draws attention to the " ... often 'common but puzzling' observation that even when teachers give students valid and reliable judgements about their work improvement does not necessarily follow" (p.125). To avert this unproductive use of feedback, Sadler (1989) argues for clear communication of standards as this provides a model for progressive development. He calls for specific goals to guide the use of feedback. However, Sadler also recognises that such goals or standards can become a static condition and unsuitable for dealing with the contingency nature of professional learning. He offers two approaches which in his view serve to remove any restrictions on the interpretation of standards. One is descriptive statements and the other exemplars. Descriptive statements as he puts it "sets out the characteristic properties of a performance at a designated level of quality" with exemplars ensuring that students learn that there are many ways in which work of a particular quality can find expression. The approach serves to provide students with a flexible view of quality and therefore does not stifle innovativeness and creativity reflecting their own personality and style.

There are some educators who believe that explicit statements defining standards risk their treatment as 'canons' of professional practice or are problematic to use (see, Carr 1993; Cresswell, 1996). Cresswell in particular argues that explicit statements of standards or criteria have often been mechanically applied, in this way, ignoring the fundamentally subjective nature of the value judgements involved. However, it would appear that Sadler's conceptualisation of standard setting gets around this problem by suggesting that exemplars are provided to offer flexibility in its application. Elsewhere Sadler notes that:

"Exemplars are key examples chosen so as to be typical of designated levels of quality or competence. The exemplars are not the standards themselves, but are indicative of them; they specify standards implicitly." (Sadler, 1987 p. 200)

This conceptualisation means that standards could be structured to offer sufficient scope for students to be innovative, creative and critical in their learning and the way in which they approach assessment tasks. How relevant is all of this to the function of feedback? Again, as Sadler (1987) notes its value is in the way in which it can have a strong *regulatory* function.

"... the conditions necessary for the intelligent use of feedback is that learners know not only their own levels of performance but also the level of standard aspired to or expected. Without an appreciation of that, students' efforts in production are likely to contain elements of random trial and error" (Sadler, 1987, p. 196)

This fits in well with Ramaprasad's gap closure conceptualisation of feedback:

"The necessary conditions for feedback are the existence of data on the reference level of the parameter (*or, the standards reference data*), data on the actual level of the parameter (*that is, the exhibited performance level*), and a mechanism for comparing the two to generate information about the gap between the two levels. There cannot be any feedback if any one of the three (data on the reference level, data on the actual level, mechanism for comparing) is absent." (Ramaprasad, 1983 p. 5, emphasis mine).

What is less clear about this view of feedback is how it can be operationalised to promote learning improvement; how can it be incorporated into an actual instructional/assessment system and how would students to able to access it? There also appears to be lacking, research into how students relate to a standards-referenced assessment system or how it

affects their approach to learning. Much of what is written in the assessment literature deals with normative and criterion-referenced assessment systems. Research will be needed to identify all the ramifications of applying a standards-referenced assessment scheme.

From the discussions in this section, it is clear that feedback is an important ingredient for promoting improvements in learning. In the discussions it was pointed out that some indication of what the expected 'standards' are, in a learning or assessment situation, could make feedback potentially more operative and effective. It was also argued that it is important for such standards to represent a dynamic and flexible interpretation of expertise to make feedback meaningful and adaptable to the context of learning.

As has been noted earlier in this thesis, profiling the results of assessments has been advocated by many educators on the grounds that it could provide the opportunity for formative and summative assessment to function under a unified assessment system. (See for example Murphy et al., 1993; Rowe & Hill, 1996). The remaining sections of this chapter examines this in more detail, particularly issues about its use in the teacher training context.

4.7.   Profiling

4.7.1. Introduction

In this section, the review of the literature addresses the issue of profiling as a system for recording and reporting assessment, examining its philosophy in relation to the role of assessment. Also, the demands profiling makes on the curriculum and pedagogy

are examined. The final section focuses on the use of profiling in initial teacher training.

4.7.2. Key issues in profiling.

Bray (1986) explains that a student profile is,

"... essentially a discussion document designed as a systematic, detailed, comprehensive and purposeful statement intended to focus on, and to assist in the individual's progress and development. As such, the individual often contributes to it, and has access to it; he/she may share in the assessment process, and may be involved in the decision arising out of the assessment" (p. 141-142).

Fairbairn (1988), also points out that profiling is,

"... a method of presenting information on a student's achievements, abilities, skills, experiences and qualities from a range of assessments, and often from a range of assessors including the student themselves. The assessment information can be provided in a variety of ways, e.g. in the form of grades, marks, percentages, comments and performance descriptors or criteria" (p. 35).

These two explanations of profiling clearly show that profiling is considered to have a wide variety of applications, covering both formative and summative functions of assessment. "It includes the continuous formative learning process, as well as the summative, or summary, document of record" (Hitchcock 1990, p. 2). In particular, "they provide recording and reporting frameworks for diagnostic assessment" (Rowe & Hill, 1996 p. 316). An important aspect of profiling is also the access it can provide for the student to be actively involved in the assessment process. Finally, profiling is seen as providing the opportunity to compose the learner's progress and achievements in systematic and comprehensive detail (Bray 1986).

A survey of the relevant literature on profiling also suggests that it is

conceptualised in terms of two dimensions of assessment: the process and the product, or the formative and summative parts respectively. According to Munby (1989) the process and formative part refers "... to the ongoing profiling process involving the self-awareness, reflection, review and dialogue, which aids the student's personal, educational or career development" (p. 78). A record of this process in some tangible form with subsequent summative judgements about achievements represents the summative or product part. It is a view which accentuates the difference between a profile as an administrative record often for reporting purposes and as a working document intended to help the student progress and develop (Bray 1986). It is the working document aspect which is considered to promote the formative function of assessment. In this respect, it is seen to be more than a record of achievements or the accumulation of evidence to support progress. Instead, it serves as a framework for monitoring students' educational progress against some reference standard or criteria (Rowe & Hill, 1996).

Fairbairn (1988) notes that it is much easier for teachers to understand and emphasize the summative end of profiling than the formative processes in their practices because of the transient nature of formative processes.

> "It is not surprising that teachers should tackle the development of profiling from the reporting angle. First, the summative, end-product of the assessment and profiling process is the only tangible part which is readily communicable to novitiates. A teacher looking to existing schemes for profiling ideas, will inevitably come across products rather than processes ... What is more difficult to ascertain are the processes of assessment and discussion which precede recording" (Fairbairn 1988, p.56).

In other words, although profiling schemes may be considered to provide ideal

opportunity for the formative function of assessment, the documents themselves give little insight into how that function is operationalised.

Bray (1986) points out that within education there are differences in the priorities, purposes and philosophies behind profile development. These differences reflect the formative or/and summative thrust of the intended assessment scheme. Thus, in contrast to Fairbairn, Bray sees ways in which the formative function of assessment can be made more tangible and accessible to the teacher who operates it. In other words, profiles can be designed either with a primary intent on the summative or formative function of assessment. He enumerates them as follows;

"(1)   Profiling for formative assessment, assessment in *support of learning* to enable students to *understand*, and *build* upon, learning experiences - and reflective skills; attitudes, feelings and sensibilities; ... that are not easy to assess by conventional means.

(2)   Profiling for formative assessment but this time for - *remedying* weaknesses, improving performances and optimising strengths;

(3)   Profiling as a means of developing a *discussion document*, offering more relevant and reliable data on abilities, skills, attainments and attitudes, as a basis for decisions taken by and with the student on curricular, vocational and personal development;

(4)   Profiling as a *statement of attainments*, including but going beyond examination results, for the use of outside agencies, particularly employers, after the student has left school" (Bray, 1986 p. 142, my emphasis).

This categorisation of profiling suggests that the role of assessment in relation to student learning or achievements determines its principal function. Nevertheless, the important issue is whether, in a single profile scheme, all four purposes can be represented but to

134

varying degrees. It raises once again, the issue of using an assessment system for both

summative and formative purposes and the tensions that arise from doing so. Another

important question is, what is lost or gained by a focus on one over the other? While

Noss et al., (1989) do not posit a firm separation between the formative and summative

roles of profiles, they argue:

> "The problem is that schemes which purport to simultaneously undertake
> both grading (summative) and diagnostic (formative) assessment are
> fundamentally unviable. The danger exists that schemes which start out
> solely with the intention of providing private or diagnostic tools become
> used as part of public [graded] assessment - and thus their original
> intention is destroyed" (p. 115)

Similarly, Hitchcock (1990) argues that the underlying philosophies of the two appear to

be difficult to reconcile.

> "On the one hand, formative profiling is concerned with improving
> relationships between students and teachers, and is aimed at increasing
> self-esteem and self-confidence; it is geared to improving attainment and
> enhancing self-development. On the other hand, summative profiles are
> more concerned with reporting and passing judgement upon the student."
> (Hitchcock 1990, p. 93)

Others, such as Brown (1989) are more optimistic and assert that "the two can and need

to be linked" (p. 122). Thus, whether profiles can be used to serve effectively both

formative and summative functions of assessment is still a contentious issue.

Another positive attribute of profiling reported in the literature is the flexibility it

offers for reporting the outcome of assessment. Rowntree (1987), for example cites

numerous examples of how profile reporting can be done. One of particular interest to

this thesis is the narrative analysis of performance. The others focus on lettered or numerical transcripts of achievement and are considered by Rowntree to produce little effect on the learning process. This is because they are not directed at learning-related problems or difficulties. Rowntree argues that the narrative analysis of performance as a reporting strategy allows for a more humane relationship between the assessor and the assessed and, creates an opportunity for debating the criteria for assessment. This is a method of reporting that fits into an increasingly popular view of assessment in initial teacher training where the student teachers input in the assessment is valued and often credited (Haney et al., 1987). The current system of reporting CA in PSTT in Ghana does not recognise this kind of reporting. CA is reported as aggregated scores and the framework does not exist for promoting this emphasis.

4.7.3 Potential problems with the use of profiling

In a review of some school-based developments and use of profiling in Britain, Fairbairn (1988), revealed that teachers faced numerous challenges in its practical use to assist students. One practical problem identified by Fairbairn in his research is the problem of time for developing and using profiles. Teachers in particular faced this difficulty with using observation methods with large groups. This meant a prolongment of assessment often over several weeks to assess all pupils for a given set of skills. He concluded that "the assessment, recording, discussion and reporting which make up the profiling process all take time". This raises the issue of effectiveness of formative feedback from the profiling process as obviously the time required for feedback will also be affected. Crooks (1988) points out that for feedback to be effective it should take place while it is still

clearly relevant. This usually implies that it should be provided not long after a task is completed, with the feedback having the potential to promote improvements in student learning.

Another argument for the use of profiles is the flexibility it provides for students to contribute to their own assessment through self-assessment (Bray 1986). This is perhaps the most powerful argument for its use, and there is evidence to suggest that self-assessment does indeed produce positive effects on learning (Fairbairn 1988; Butler & Winne, 1995). Nevertheless, Fairbairn cautions that the benefits of self-assessment will be reaped if only certain conditions are ensured. These are that:

(1)   The purposes of self-assessment are made clear to students. These purposes may be to help the student to identify strengths and weaknesses, to help the student decide what kind of help he/she needs and to involve the students more in the learning process. Other purposes may be to give students more responsibility for planning their work, to decide learning targets, and to provide teachers with feedback.

(2)   The language and criteria used in student self-assessment sheets must be understandable to the students.

(3)   Students must feel that self-assessment is more than just a dialogue with themselves. The information must be commented upon by teachers. This is perhaps the most challenging feature of profiling - when and how to act upon information gathered.

Rowntree (1987) points out that profiling can have deep repercussions on the curriculum especially where different courses may require different emphasises on the design and operation of profiling. For example, course structure, content, teaching and learning methods will all have to undergo significant changes to fully accommodate the use of profiling. He also suggests that the introduction of profiles might create both problems and opportunities for teachers. Some problems for teachers will centre around the need to make plain, "both to themselves and others, the criteria by which they assess" (Rowntree 1987, p. 237). Those who have never given serious thought to their assessment constructs may then find it difficult to explain their criteria. Others may know quite well their assessment constructs but may be of the view that revealing or sharing it with students could undermine their 'expert' status.

There is no doubt that the introduction and effective use of profiling as an assessment process will call for considerable changes in many areas of educational practice, will need proper conceptualisation particularly by teachers and structural support. These changes will be necessary whether one is considering pupil profiling or profiling in ITT. For the effective use of pupil profiles in schools in Britain, Fairbairn suggests as many as eight changes that should take place. Four of these are in general applicable to other levels of education including teacher education and are summarised below to end this section. Effective use of profiling will require:

(1)   The provision of INSET for practical classroom-based help with assessment, recording and reporting and with the formative use of assessment information. INSET will also be needed to provide guidance and support for teachers in key

co-ordinating and leadership roles to help them manage the development of profiling.

(2)   The creation of non-contact time for teachers for the purpose of review, material development and subsequent reflection and planning with colleagues.

(3)   Flexible teaching methods to facilitate individual and small group work, as well as whole-class teaching. This will need to be an integral and necessary part of any substantial change towards profiling.

(4)   Timetable changes to facilitate more effective formative assessment and teacher/student discussion. Blocking the timetable, at least in some subjects can provide teachers more flexibility to integrate teaching, observation, assessment and discussion.

Part of the intended purpose of this thesis was to explore the extent to which structural changes have been made by case study institutions to encourage the use of assessment information to support student learning. This will provide some indication of the readiness of the training college set-up in Ghana to adapt profiling as an organising framework for CA.

The next section examines profiling in the particular context of teacher training and, looks at its potential for improving the student teachers' professional learning and development.

4.7.4 Profiling in Initial Teacher Training

In Britain, unlike Ghana, profiling has found considerable application in teacher training. Several individual schemes have been developed and used, each reflecting a particular philosophy of professional training. Profile development and use in training institutions in Britain have been under the national framework of competency based teacher education (DFE, 1993), but individual institutions have been allowed the freedom to interpret competency criteria to fit particular philosophies of training. The competency based framework set out in the DFE Circular 9/92 directs that "the means of assessing students' competencies should be fully documented to, and understood by students, teachers and tutors", and that "students will participate in their own assessment with tutors and teachers" and that institutions should report "*how students are profiled for prospective employers*" (quoted in Murphy et. al., 1993, p.142, emphasis mine). The competency based framework for student teacher assessment has attracted a lot of debate from educational researchers in Britain (see, for example BERA 1992). Some of the issues debated have already been discussed earlier in this chapter and thus, there is no need to rehearse them. However, one aspect of the Circular's directive that appears to have received the support of many teacher educators is the aspect on profiling. This is hardly surprising since it offers the opportunity for training to foster a formative and developmental perspective of professional development - a perspective shared by many teacher educators and teachers (see Bridges et. al., 1995). Following Circular 9/92, many Higher Education Institutions (HEIs) who are involved in teacher training have developed a scheme of profiling which allows for greater participation by students in their assessment and, in some cases gives them opportunity for developing a professional development

portfolio (for example, The Open University national assessment scheme - Moon & Mayes, 1995).

Calderhead and James (1992) describe a student-centred log approach developed at the University of Bath School of Education which sought to offer students greater opportunity and responsibility in reflecting on their professional development. The aim was to foster reflective development and the log approach was seen to offer students greater responsibility in charting their own progress. The model was also seen primarily as formative. The Department of Education University of Cambridge on the other hand, developed a profiling scheme based on a competency check-list (Beardon and Reiss 1991) that reflects what some educators consider a mechanistic approach to competency development (Murphy et.al., 1993). There is an aversion among many educational researchers to 'check-listing' as a means of reporting the student teachers' development and achievements because they see it as contrary to reflective practice philosophy. But perhaps the reason why it has sometimes been used is because of the ease with which it makes the recording of achievements. The disadvantage though, is that it can be restrictive and fail to provide a more holistic view of training experiences and achievements (Whitty, 1994).

Whitty (1994) reports on a profile scheme for teacher training developed in Northern Ireland. The main characteristic of this scheme was the development of teacher competencies under two main domains: professional characteristics and professional competences. This particular division was based on the notion that "professional characteristics were ... the underlying qualities of the teacher which enabled him or her to pull the individual competencies together and apply them in the professional context"

(Whitty, 1994, p. 37). The developers of the scheme felt that, in order to teach satisfactorily, certain craft skills had to be learnt but at the same time, it was important to recognize the role of generic professional competence which were in the main non-specific. The Northern Ireland example reflects an eclectic stance of the two extreme positions of competency development illustrated in the Bath and Cambridge model. As pointed out in section 4.7.2, profiles often reflect a particular philosophy or purpose of training and these examples clearly show such differences. However, some professional teacher educators are of the view that the format of profiling that can be most helping for teacher development is one based on an empowering philosophy - one that focuses on the students' "self-image as they develop into competent teachers" (Murphy et.al.,1993, p.143). Murphy et al., point out that this approach offers several advantages to the student teacher's professional development and enumerate them as helping to: .

"(a) make explicit the skills, knowledge and understanding necessary to become an effective teacher;

(b) articulate their own decisions about appropriate teaching strategies with the support of the above;

(c) see learning to teach as a developmental process and learning to teach better as the long term concern;

(d) focus their reflections and evaluations about their own practice - what they have achieved and what they are yet to grasp;

(e) set realistic future goals and to be involved in the process of assessing to what degree they achieve them;

(f) gain assessment experience of a profile assessment system similar to that

142

which they may encounter in schools" (Murphy *et al.*, 1993, p. 143).

The writers also stress the need for profiling and reflective process to be a part of the way in which teacher trainers and students develop their work for assessment. This, according to them, avoids the situation where profiling becomes "... a free floating strand in ITT" (p. 144). Such a profile, from the point of view of Murphy et al., should also be student-led. They do not however, provide any specific example of how in practice it can work together with teaching and learning and how the formative process can be summed up for summative purposes. However, The Open University model of profiling described by Moon and Mayes (1995) offers an insight into how such an approach to profile development might work in practice.

As Moon & Mayes point out, the Open University model is an attempt to introduce a values dimension to the assessment of teacher competencies. The values dimension is seen in terms of professional qualities and is assessed in the context of day-to-day teaching tasks leading to a matrix representation of achievements. However, the aspect of the model which is of interest to this thesis is the way in which it illustrates how formative development is conducted and recorded for summative purposes.

"As students demonstrate increasing competence within the defined areas

of competence they ... *simultaneously* develop a foundation of evidence

for their capability in relation to professional qualities. Second the model

is seen primarily as *formative* during the students' progression through the

course. Finally summative judgements are made at the point when all the

necessary evidence is accumulated. This stresses the importance of the

interrelation of the various competences and professional qualities and disavows an attempt to 'tick off' competences in a discrete and isolated way ... The model therefore allows for *critical reflection*, including some negotiation of assessment targets during the course whilst specifying the judgements made by assessors when the final judgements are made. Students are primarily responsible for developing a professional development portfolio within which they accumulate the variety of evidence to support their progression through the course."

(Moon & Mayes 1995:237)

According to Moon & Mayes, this process results in an assessment portfolio which includes school reports, assignments, log of school experiences and student materials selected with mentor support. This portfolio is then submitted to the Assessment Board who base their final assessment on the accumulated evidence before them. This Open University model of assessment and profiling illustrates an attempt to ensure that the formative and summative dimensions of assessment operate under the umbrella of reflective development philosophy.

The idea of profiling in ITT particularly as discussed above has never been tried in Ghana. When CA was introduced in Ghana, the expectation was that a profile covering students' abilities, efforts and achievements would be produced. Such a profile would have represented a sample of students' learning over time and thereby provide a more reliable estimate of achievement (Guidelines for CA in PSTT, GES, 1992). The indication is that this has not happened. The guidelines were silent on how student profiles were to

be developed and used. It would seem that for similar profiling approaches described in this section to be developed there would need to be a fundamental shift in the philosophy of teacher training in PSTT in Ghana. The prescriptive and deterministic nature of training will need to change to allow students more involvement in the assessment process.

In some respects, profiling and CA are synonymous and the principles of profiling can become the basis for operating CA. Profiling can therefore give more meaning and relevance to CA practice in PSTT in Ghana if its principles are worked into it. Obviously this has to take account of social and cultural realities in teacher training in Ghana. It is expected that the case study evidence in this research will provide some preliminary information on practical problems that would need tackling before profiling can be adopted or adapted in teacher training in Ghana.

4.8.   Summary

In this chapter, an attempt has been made to examine issues about formative assessment and the improvement of learning with particular reference to professional learning in the teacher training context. Issues examined include the tension between the formative and summative functions of assessment and the nature of this tension in ITT in Ghana and Britain. In addition, the ways in which formative assessment has been conceptualised in the literature were reviewed, and certain implications for professional learning examined. For example, it was noted that the view of formative assessment as a mechanism for developing metacognitive learning was particularly relevant to the reflective development philosophy of professional learning in teacher training. Finally, the

potential of profiling as a means of fostering a formative and developmental perspective on learning was examined. Some teacher education profile models which have been developed in Britain were briefly examined.

It is reasonable to conclude from the discussions that formative assessment has an important role to play in professional learning at teacher education. However, this role needs clear definition and appropriate conditions before it can be expected to impact training. Some of these requirements have already been highlighted in the discussions in this chapter. The introduction of CA into PSTT in Ghana clearly envisaged some of the advantages ascribed to formative assessment as discussed in this chapter. As often happens however, there is always some gap between official policy and practice and it is the intention of this thesis to provide illumination on the nature of this gap and recommend ways of bridging it.

The second part of this thesis explores through case study evaluation, views about CA and its practice in PSTT in Ghana. The analysis of the case study findings will also relate to some of the issues raised in this chapter and the previous, Chapter 3. It particularly seeks to examine how tutors and students view and derive formative assessment from CA to improve or promote learning. The case study report and analysis will also shed insights into some of the critical incidence that have influenced the practice of CA in the colleges in Ghana. The case study will also examine whether there are any institutional management of CA and the conditions under they operate, for possible recommendations on how CA practice could be made more effective to promote learning.

PART II

CHAPTER 5

THE RESEARCH METHODOLOGY

5.1. Introduction

This chapter discusses the research methodology adopted for the study. It examines the rationale behind the choice of qualitative research methodology, detailing methods and procedures used to gather data for analysis. As it is further explained in the chapter, an important consideration which informed the choice of qualitative methodology was the need to gain an in-depth picture of perceptions about the current assessment policy in PSTT in Ghana and the influences that have shaped them. This meant examining the *different* views and perceptions about CA and the factors that might have contributed to the way in which it is perceived and practised. Since issues about context and experience were important to the different perceptions, the research required the use of qualitative approaches. As Greene (1994) points out,

> "When .... information needs comprise multiple perspectives, contextualised meanings, or the experience of program participation, ... then qualitative methods should be employed." (Greene 1994, p. 539)

The chapter also contains a discussion of some of the philosophical issues that underpinned the choice of methodological approach for the study. The remainder of the chapter deals specifically with the development and design of the research, specifically data collection and analysis procedures. The final section describes the way in which the case study findings are reported and analysed.

148

5.2.   Rationale for a Qualitative Design

There are four main reasons, one major and three minor ones, for the choice of a qualitative research design for this study. The main purpose of the study was to provide an illuminative evaluation of the practice of CA in PSTT in Ghana. Thus, the first and major reason arose from the need to understand how the practice of CA is viewed by those directly affected by it. I felt that there was the need for information on how tutors in training colleges perceive the newly introduced system of CA; what factors influenced what and how they assess, and whether, students felt it was making an impact on their learning.

Also, as Broadfoot (1996) points out, "... the content of assessment procedures is very significant for the way in which it is likely to affect the entire teaching/learning process in both form and process" (p. 28). So, for example, was the content of tutors' assessments exerting a positive influence on teaching and learning and vice-versa, or were there other forces responsible for the way in which teaching, learning and CA was conducted in the colleges. Another issue was whether certain considerations which are rooted in the values and beliefs of tutors and which define their assessment culture and agenda was influencing the interpretation and application of CA. What would really be crucial for CA to be applied in a way that could enhance considerably the professional learning and development of students in PSTT in Ghana?

The purpose of raising these questions and issues is not to rehearse the key questions of this research, already discussed in detail in Chapter 1, but to highlight *why* they require qualitative approaches. Essentially, these questions invite information that reflects programme participant perspectives. It was important to hear students and tutors

talk about the meanings they had attached to the introduction and practice of CA in teacher training, and to reflect on these meanings in order to understand what had influenced them. This meant the use of *naturalistic* research inquiry approaches (Guba & Lincoln 1985; Stake 1995; Greene 1994) which has the potential to reveal the influence of context (social, micro-political, institutional, personal etc.) on perceptions and practices. The approach of naturalistic inquiry, as Maykut and Morehouse (1994) point out, requires the researcher to be a part of the investigation through observation and in-depth interviewing but also to be removed from the research situation to rethink the meanings of the experience. Thus, in summary, it was the information needs and the kind of methods that would provide answers and insights into the research issues that suggested the research approach (Burgess, 1985).

Focusing on the ways in which CA is practised in the case study colleges was also one way of " ... assessing the points at which policy and practice converge or diverge" (Vulliamy, 1990) and so, offer the opportunity for the research to highlight the gaps which often exist between policy directives or guidelines and actual practice (Adams & Chen, 1981). It was also important to identify some positive things that the new assessment scheme had brought into teacher training and to understand how they were caused.

The study does not rest on the case study colleges alone. The case study colleges are a big part of it. Officials who are closely connected with the teacher training establishment in Ghana were interviewed to gain understanding of their perspective on the policy of CA.

Secondly, it was intended that findings from the research would help to point to changes that would have greater chance of success and be acceptable to tutors and

150

students. However that would mean paying attention to the perception of those directl involved and using the results to suggest changes that are responsive to actual needs an concerns. In this respect the research could be described as "responsive evaluation (Stake, 1994) since it seeks to uncover and then address the concerns of key participant towards the improvement of practice. And as Greene points out, improvements are "mor likely if local rather than remote concerns are addressed ... and if local rather than remot values are explicated and used to make ... judgements (Greene 1994, p. 538). Foi example, for this case study evaluation it was important to consider the motivations anc capabilities of tutors who carry out CA, since these are critical for any improvements tc practice.

The third consideration stemmed from the recognition that a brief involvement oi hands-off distant research approach especially through quantitative survey-type questionnaires would not delve below the surface of the 'official' version. I was sceptical about using questionnaires in this research as the sensitivity of the issues being investigated might have caused a tendency to reproduce the rhetoric of policies. Besides, the persistent warnings from the Institute of Education UCC and Teacher Education Division that they would send officials to check on whether colleges were implementing CA as prescribed, could have influenced the way tutors and students respond to inquirers that did not attempt to delve deep into perceptions and practices. It was therefore important to be in sufficient contact with the research subjects and setting to understand fully the actual influences and impact of the policy of CA. More so, given the affirmative culture of most African societies, it could be argued that this approach was even more important. In many African cultures, there is a tendency towards an affirmative view of

life, as Stephens discovered in his research in Nigeria. This affirmative attitude often is intended "to minimize points of disagreement and ... to harmonize possible conflicting perspectives" (Stephens 1990, p. 146) or to parrot official rhetoric to 'stay safe', as I observed during some of the interviews of this research. To reduce such influence, it was necessary to place myself into the study situation where responses could be validated, if necessary, for their truth value. This called for closer association and the use of more open-ended research approaches.

The fourth and final consideration stemmed from the lack of research into educational assessment in Ghana which is sensitive to context and reflects 'insider' accounts or participant experience of assessment programmes and innovations. The lack of such research is a problem reflected in the wider educational research culture in Ghana which seems to place more emphasis and value on quantitative research approaches than its qualitative counterpart (Agyeman, 1991). Agyeman believes that this overemphasis and reliance on quantitative research approaches has contributed a blunted meaning to the analysis of education in African societies and has led to policy measures based on half-truths. The result of this, he adds, is the lack of better understanding of the experience of teaching and learning and other educational phenomena that constitute the internal system of the educational enterprise in most African societies.

Similarly, Griffiths & Parker-Jenkins (1994) writing about the methodological and ethical dilemmas they faced in doing research in Ghana, argue that quantitative survey-type research will have limited value if "... high-level qualitative work has not been done to discover what categories, terminology and forms of approach should be employed" (p. 455). It is my view that there is still a lack of this preliminary qualitative work in the

educational research community in Ghana. For example, on the subject of assessment, apart from Akwesi's (1994) in-depth study of continuous assessment in secondary schools in Ghana and UK which made use of case study methodology, investigations into issues about assessment tend to use orthodox research tools (see, for example Amedahe 1994). Though these have the potential to provide education policy-makers with indications of the outcome of innovation, nevertheless they often fail to provide insights into unintended consequences and to address the concerns of those directly involved with the innovation (Parlett & Hamilton, 1977). For example, in Amedahe's study of attitudes towards the use of CA in Ghana which used a Likert type scale questionnaire to collect data, he came to the general conclusion that " ... teachers in Ghana have positive attitude towards the use of continuous assessment" (p. 8). Though this conclusion may be, by itself, sufficient in suggesting some level of initial preparedness or agreement with the principles of innovation, it nevertheless does not answer some critical concerns of educational change or innovation. For example, were these teachers using CA in the way suggested by official policy guidelines, or had any 'mutual adaptations' (Fullan, 1982) occurred between the new assessment policy and the teachers who implement it? As Fullan (1991) points out, "... it is possible to value and even be articulate about the goals of ... change without understanding their implication for practice" (p. 40). Therefore, these are *necessary* questions to address in any educational innovation or change. It is important to know *how* policy is being carried out and whether the implementation corresponds to policy guidelines or whether these guidelines lack sensitivity to the context of application.

Fullan (1982) argues that the results of a quantitative input-output research design about educational policy issues are often difficult to interpret because of the assumptions

they make. First, they make the assumption that the policy is actually implemented and secondly, that the process of implementation corresponds to the policy directive itself.

It is my opinion that, Akwesi's (1994) study provides a fuller picture of how CA policy for the Basic Education level in Ghana has been interpreted and implemented. For example, it revealed that teachers' attitude towards CA is less than enthusiastic, that there was " ... frustration, anxiety and negative feelings, ..." (p. 327) among many teachers who felt that the policy generally lacked sensitivity to their needs and concerns and that it failed to take into consideration the issue of large class sizes, work load and time constraints. (see Chapter 3 for a review of Akwesi's findings).

The decision to adopt a qualitative research approach therefore, stems from the motivation for research that not only fills the gap between policy and practice of assessment in Ghana. It is also in response to calls for more qualitative work to research educational problems particularly in developing countries to further their understanding (Fuller & Heyneman, 1989, Vulliamy, 1990, Agyeman, 1991, Akyeampong & Murphy, 1997).

5.3. Developing an appropriate approach to Data Collection and Analysis: Some Philosophical Issues

In the search for an appropriate qualitative methodological approach, one problem I faced was the variety in application of qualitative method. As I examined the qualitative research literature it became clear that the differences were actually a reflection of subtle philosophical strands that underpin the qualitative research paradigm. This stands in sharp contrast to the positivist approach to research which is firmly established on a tradition

of prediction and control as the general plan of inquiry and is based upon "... the scientific search for cause and effect expressed ultimately in grand theory" (Stake 1995, p. 39) or, as 'middle-range' theories that deal with specific aspects of social phenomena (Bryman 1988). The quantitative tradition employ standardised statistical methods designed to confirm or refute a proposed hypothesis of social or educational phenomena with the intention towards generalisation. However, with qualitative research, relatively little standardised instrumentation is required since the researcher is essentially the main "measurement device" in the study (Miles and Huberman, 1994). Therefore, diverse and flexible approaches which reflect the different purposes of qualitative. inquiry and corresponding style of analysis are admissible in qualitative studies. For example, a quest for lawful relationships within a phenomenon with the intent on theory development (eg. Grounded Theory) would require a highly systematic approach to data collection and analysis (Strauss & Corbin, 1994). On the other hand, an interest in the phenomenological experience of people with emphasis on "thick descriptions" (Geartz 1973) that lends itself to "multiple compelling interpretations" (Miles and Huberman, 1994) is derived from a more holistic approach to data collection and analysis.

However, all qualitative researchers share some similarities in their sources of data: interviews, field observations as well as documents and regard the researcher as the *key instrument* in the collection and analysis process (Maykut and Morehouse, 1994). Qualitative research also shares a common underlying philosophy which is that the understanding of social or educational phenomena requires the perspective of 'insiders', and takes into account the context in which the phenomena occur. Qualitative research, according to Maykut and Morehouse (1994), "values context sensitivity" and seeks to

understand "phenomena in all its complexity and within a particular situation and environment" (p. 12).

There are however, some differences in the approach to data collection and analysis of qualitative research which reflect different theoretical and methodological stances (Vulliamy, 1990). As Fetterman (1988) points out, "one approach may appear radically phenomenological; another mildly positivistic in style, tone, and formation" (Fetterman, 1988; p. 3). Two such similar stances considered in this study are discussed next.

There is the view, particularly favoured by Miles and Huberman (1994), about doing qualitative research which appears to lean more towards formalization and structure of methods (eg. predetermined conceptual frames, pre-coding, highly structured protocols and analysis procedures etc.) resembling quantitative designs. Proponents of this view however stress that the intended purpose is to provide *thoroughness* and *explicitness* of the data collection process and ensure that the evidence gathered is based upon *rationality* and *trustworthiness* of methods (Miles and Huberman, 1994).

In contrast Lincoln & Guba (1985) argue that there are intrinsic criteria embodied within the qualitative research paradigm and ways of operationalising them to ensure the authenticity and trustworthiness of qualitative data. Stake (1995) adds that because qualitative inquiry is essentially subjective it does not require "widely agreed-upon protocols that put subjective misunderstanding to a stiff enough test"(p. 45) although, validation of evidence must be considered important. The primary intention however, is to provide "thick descriptions" of phenomena based upon insider accounts of reality. Validation of information is, however, reached through triangulation and in one particular

form - methodological triangulation is often used in case studies. This involves the multimethod approach of observation, interview and document review to bear on evidence (Stake 1995, Marshall and Rossman 1994).

These two perspectives, it appears, have roots in certain philosophical positions about social or educational inquiry. The formal, more structured approach appears to reflect the idea that phenomena, social or educational, consists of a subjective reality embodied in some lawful and reasonably stable relationships that link various aspects of the phenomena. In other words, inter-subjective reality coalesces to produce some kind of 'objective' phenomena. It is based on the understanding that "... individuals and groups interact to produce social phenomena (... policies, educational change programs) which exist outside any given individual" (Fullan, 1992, p. 37). A methodological implication of this could therefore be that one should admit certain pre-structured qualitative protocols or tools that attempt to discover and describe the phenomena from the perspective of key participants but in the context of links and relationships that might be operating within the phenomena. Similarly, one could incorporate very systematic collection and analysis procedures cyclically, to understand the phenomena as a whole, with the view to theory building. The result is often findings that provide a causal description of the forces at work leading to a theory (Miles and Huberman, 1994).

The alternative perspective sees things as rather more complex and fluid. It places more emphasis on the role of *values* and *context* in the understanding and interpretation of phenomena and sees the investigator as a critical part of this process. Here, the researcher is as much a part of the research 'content' as his/her subjects or interviewees. The real issue, therefore is not a matter of structured method but rather a question of

openness, dialogue and negotiation in the whole research process (Smith, 1989). Qualitative researchers typically enter the research setting as learners, acknowledging that they know little about the salient issues. The emphasis of approach is on the investigator as primary gatherer and interpreter of phenomena with a " *highly adaptable instrument* that can enter a situation without prior programming but can, after a short period, begin to discern what is salient and focus on that" (Lincoln & Guba 1988, p. 105, my emphasis). This perspective is also based upon a view of systematic or scientific research which is more than a series of procedures or instruments. As Havelock and Huberman (1977) point out it is;

> "... an epistemological view of how we can 'know' what is happening in schools ... in ways that assure our knowledge is neither subjective nor unreliable" (Havelock & Huberman, 1977, p. 275).

The methodological implication is that less structure in terms of prior design and formalised procedures is required, with analysis focused on discovering themes and patterns from the data to develop a holistic understanding of the phenomena or issue(s). Here, the intention is not to develop theory but to understand meanings attached to an issue from the perspective of those studied. Critical to this endeavour is the role the researcher's own experiences and value orientation play in the research process and also the prevailing conditions of the phenomena or innovation.

However, the point about these two methodological perspectives is not whether there is a right or wrong approach, rather which reflects one's personal values or philosophical stance regarding qualitative inquiry? Secondly, which is the more appropriate given the objectives of the research. Moreover, many qualitative researchers

are agreed on the fact that no study conforms exactly to a standard methodology and that researchers often adapt methods and procedures of analysis in relation to their research focus (Strauss & Corbin, 1994; Miles & Huberman, 1994). For example, the constant comparative approach to data analysis originally developed by Glaser and Strauss (1967) for theory building now finds application in other qualitative studies that are not intent on building theory. Some researchers have suggested its use to generate themes and patterns from qualitative data in an attempt to develop a holistic understanding of a social or educational phenomena (see for example, Maykut and Morehouse, 1994). Similarly, Lincoln and Guba (1985) have illustrated its use in the context of "descriptive and explanatory categories" (p. 341) to help understand social or educational issues.

5.3.1   Background of Researchers Methodological Position

In this case study, the methodological approach I adopted was influenced largely by my own philosophical inclinations to qualitative inquiry which reflects an eclectic stance of the two positions described in the previous section. Even more important, it reflects my personal view of the needs of the research. My philosophical position has roots in how I have come to view the nature of certain aspects of educational settings and their research needs as I have become more accustomed to it.

A significant contribution to this viewpoint came through my involvement with a National Action Research Project in Ghana, aimed at improving the quality of Primary Education. Through this research project, I came into face to face contact, in a new way, with the realities of schooling for many Ghanaian children. There were many factors apart from the lack of physical infrastructure and learning materials which were often mitigating

159

against effective teaching and learning. On the teachers' part, there were often some invalid assumptions about how children can be helped to learn. These had negative consequences on the way new materials and innovative approaches introduced through the project, were applied. Such realities challenged some of my previous values about educational research. Among the most powerful influences were spontaneous comments made by teachers and pupils during research interviews and classroom situations which I was able to observe. These were rich with meaning leaving lasting impressions about the value of adopting a humane face to inquiries into educational problems.

Later, in a paper written mainly for the Educational Research Community in Ghana, Murphy and I crystallised this position, by arguing for greater use of qualitative methods to understand some of the problems facing education innovation in Ghana. In it we argued that:

> "The problems of education are varied, interconnected and often contextual. The research tools required ... therefore need to be adaptable and flexible ... Great disservice is done to educational development when we attempt to implement new educational strategies and innovations without sufficient understanding of both classroom and school-community contexts. To understand such realities researchers need to become more involved with those they study in order to gain a deeper understanding of how educational phenomena or practice is perceived by them. Only then can research findings be applied to real and relevant issues in education in the country where we are doing our research" (Akyeampong & Murphy 1997, p. 5)

This formed the gist of my evolved philosophical position on understanding some of the problems of education, with the view to improving it. It was a position in conformity with a methodological framework that places value on the researcher as the main data collection instrument with adaptable and flexible research tools for evaluating the effects

of educational innovation or change.

With regards to the particular problems being addressed in this study, (see Chapter 1) there was need for the interpretation of CA policy based on the insiders' value perspectives, especially perspectives suggesting problematic issues and concerns, but also highlighting the positive effects (intended or unintended) of the CA scheme. It was therefore important to be less prescriptive about the evaluative approach "... to produce a more comprehensive understanding of the ... complex interactions (or meanings) that come into play when innovative practices are introduced into an existing system" (Fetterman 1988, p 24). Such understanding, I felt, was important to inform ongoing policy debate on the ways in which CA can be used to maximise the professional learning experience at the college level as well as contribute towards certification (see Chapter 1). The next section describes how the study was conducted to explore such issues and provide answers to the research questions.

5.4. The Plan and Conduct of the Research

5.4.1. Introduction

Having adopted the less formal and less structured methodological approach, the next task was to decide on the particular research framework. The multisite case study was chosen as an appropriate research plan for the study. Its strength lies in the fact that it can reveal certain aspects of social behaviour and its influencing factors so that themes, topics, or key variables may be isolated and discussed across the study sites (Hitchcock & Hughes, 1992). In this section, detailed description of the specific procedures and methods used in the collection, analysis and reporting of the case study data are explained.

161

5.4.2. Access

The question of access is central to qualitative research since the richness of the data collected ultimately depends upon what access is given to what sources of data (Akyeampong & Murphy, 1997). People who will grant interviews need convincing that the research is of some value to them and assurances of the researchers integrity, so that they approach the interview situation in a spirit of cooperation. Similarly, Hammersley and Atkinson (1993) point out that,

> "the problem of access is not resolved once one has gained entry to a setting, since this by no means guarantees access to all the data available within it ... not everyone may be willing to talk, and even the most willing informant will not be prepared, or perhaps even able, to divulge all the information available to him or her" (p. 76).

Access has therefore two sides to it, first the official permission and once in the field, the negotiated aspect with potential informants. These two aspects were taken into account in this study.

Access to the case study colleges was sought through the Director of Teacher Education. In a letter addressed to the Director, I explained the purpose and importance of the study and requested for permission to visit three teacher training institutions for the fieldwork. In response, a letter was written by the Director requesting the selected colleges for access to be given for the fieldwork. None of the colleges requested refused to participate in the study. It has to be pointed out though, that gaining unquestioned access to the colleges was because of my status and identity as a teacher educator and previous chief examiner for Mathematics in PSTT in Ghana. Obviously the problem this poses is the effect this could have on the validity of the data being collected. Steps were

taken to reduce the effect of this on the data collection process.

5.4.3. The Fieldwork

The fieldwork was conducted in two stages: the first and main fieldwork took place between February and April of 1996 and the second, January of 1997. The January fieldwork of 1997 was intended to address further issues emerging from the analysis of the first fieldwork data. It also served as a validation exercise for the findings as tutors were presented with summaries of emerging findings and asked to comment (see, Appendix 5). Partly because of constraints on time and resources the first and main fieldwork focused on three teacher training institutions. Approximately two weeks were spent in each college. These were Wesley College, Akrokerri Training College and Presbyterian Training College. The colleges chosen could be described as convenience samples but were considered to be typical in essential characteristics to the remaining teacher training institutions in the country. Figure 5.1 is a map of Ghana showing the location of all the thirty-eight teacher training colleges with the case study colleges highlighted.

The second fieldwork lasted for four weeks with approximately a week spent in each case study college and the remaining week spent interviewing some Teacher Education officials and JUSSTEP officials about CA policy issues.

Although many researchers advocate ensuring anonymity of institutions and participants in school based research (for example, Hitchcook & Hughes, 1992), this was not considered to be practical in this study. Any description of the case study colleges labelled by letter codes would be quite easy to identify by any one connected with teacher

163

Figure 5.1

MAP SHOWING 3-YEARS POST SECONDARY TRAINING COLLEGES IN GHANA
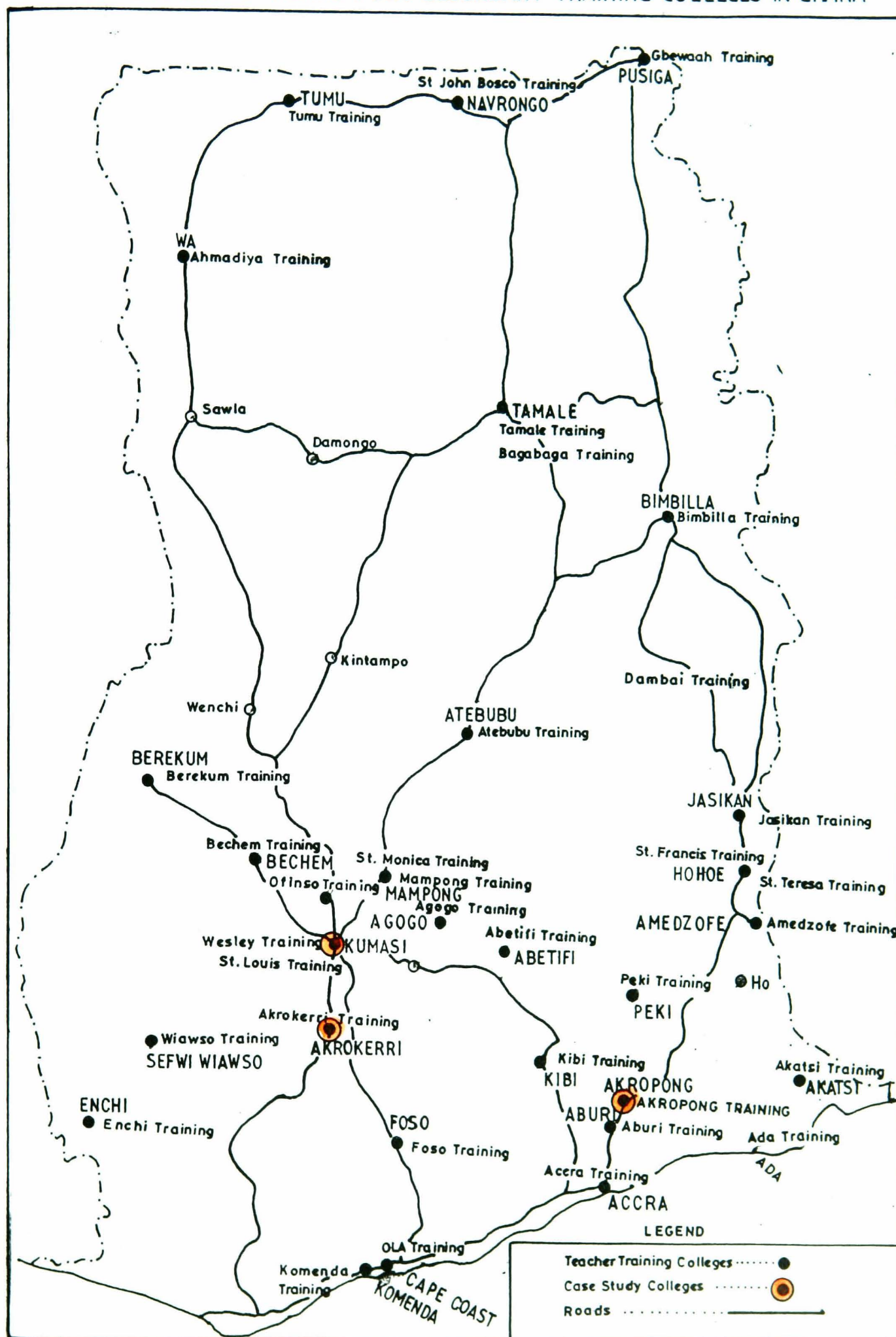
training in Ghana. Besides, anonymity of the case study colleges was not considered an ethically sensitive issue because findings were not intended to be reported in relation to any one institution.

To ensure consistency and preserve the validity of the study, similar data collection techniques were used in all the three case study sites, notably:

(i)   semi-structured interviews that focused around the key identified issues of the study;

(ii)   samples of completed student assessment work derived from those interviewed;

(iii)   observational questions which were used to guide the researcher in what to look out for whilst in the study site.

(iv)   observation of classroom teaching and learning to understand more clearly the background and context from which most of the assessments developed. This was however not possible in all the colleges during the first fieldwork. Then many tutors had suspended classes to concentrate on supervising teaching practice. However, where it was not possible to observe classroom teaching and learning directly, evidence about the general form and content of teaching was solicited through the interview. At the time of the second fieldwork it was possible to observe some additional classroom teaching and this served to validate views about classroom teaching and learning from the interviews.

I also felt that if the complexities of translating assessment policy into classroom practice was to be understood it was important to examine the views of those entrusted with developing the policy and laying down the guidelines for its operation. The group

in this category came from the Teacher Education Division of the Ministry of Education and the British Overseas Development Administration (ODA) Teacher Education Project (JUSSTEP) in Ghana. Accordingly, certain members in this category were also interviewed. In addition, it was possible to sit in on a meeting of the Professional Board of the Institute of Education University of Cape Coast where issues about CA were discussed. This body is responsible for approving the CA and examination results of PSTT students and often debates issues about assessment policy in the training colleges in Ghana. The meeting gave some insights into the current issues of concern about CA in the training colleges.

Another element of the fieldwork was the meeting with the Director of Teacher Education in Ghana which lasted about two hours. At this meeting I was able to discuss issues about the policy of CA and some major concerns about its practice. I considered it more fruitful to discuss issues in a conversational manner than through a formal interview. Notes of this conversation relevant to the study focus were immediately recorded as fieldnotes. The meeting paved the way for another, this time with key officials of the Teacher Education Directorate and two representatives of ODA Ghana, who had been involved as subject advisers to the teacher training colleges. At this meeting, I was invited to share some preliminary findings of my field research and based upon the findings, help to organise a national workshop on ways to improve CA practice.

Interviewing and holding discussions with a cross-section of people either directly or indirectly involved in the assessment of student teachers in PSTT provided a rich and illuminative perspective on the issues under investigation in this study. Details of data collection during the fieldwork is presented in table 5.2

The study focused on assessment issues in Mathematics and Science for two reasons. First, because these subjects were personally of professional interest. My particular area of specialisation is mathematics education but I also have a background training in science, specifically Chemistry. Secondly, because great importance is attached to them at the Basic and Teacher Training levels of education in Ghana (Ghana Ministry of Education, 1987).

Students interviewed were either in year three or two and were considered to have had more exposure to the CA programme and therefore could relate to the issues based on at least two years' experiences. None were from year one, as I felt they would have had very little exposure to its practice and effects. Details of the main fieldwork in each college are shown in Table 5.1.

Table 5.1.   **Details of Main Fieldwork Schedule in Case Study Colleges**

College	Duration of Fieldwork (days)*	Number of staff interviewed Maths/Science/VP	Total	Number of Students Interviewed **
Wesley College	12	6 / 3 / 1	10	PS2 - 12 PS3 - 12
Akrokerri College	9	2 / 1/ 1	4	PS2 - 10 PS3 - 10
Presby College (PTC)	9	3 / 3 /	6	PS2 - 6 PS3 - 15
Total	30	11 / 7 / 2	20	65

Note: *These were days spent living within the institutions during which data was collected
**PS3 (year three of PSTT) students were offering Maths and Science as elective subjects but both subjects are compulsory for PS2

167

Table 5.2   **Details of Data Collection**

Target of Investigation	Methodology	Purpose
1. Students, tutors, vice-principals and Assessment officers	Semi-structured interview	- To discover and describe perceptions about assessment in PSTT in case study colleges
(b) Director of Teacher Education, JUSSTEP officials	Interviews	- To gain an in-depth understanding of influences that have shaped perceptions about CA in the context of teacher training and the perceived·effects on learning to teach. (b) Policy Issues on CA
2. Documentation on teacher education reform with special reference to assessment	Documentary analysis	- To study reports on teacher education reform, continuous assessment policy and g u i d e l i n e s f o r implementation. The intention was to trace how these have contributed to tutor perceptions and practice of assessment.
3. Classroom teaching and learning context	Observation / Interview	- To relate perceptions about assessment to classroom teaching and learning context in order to understand how assessment influences the form and content of teaching and learning or is influenced by it.
4. Assessment tasks and exercises	Content analysis /Interview	- To gain understanding of the focus and purpose of assessment tasks
5. Institutional characteristics	Observation / Interview	- To gain a broad view of the environmental context in which assessment is nested and the nature of its influence on assessment practices.

168

5.4.4 The Identity of the Researcher in the Field

Cotterill and Letherby (1994) have noted that once in the field "the researcher is both put and puts herself into different roles which are relevant to the identity of the researcher as a person" (p. 116). Citing evidence from their research and others, they point out how personal identities in relation to research topics can engender positive effects in the research process. In their view, being perceived by those studied as persons who share similar experiences seem to eliminate fears about the purpose of the research and pave the way for very informative talk. The cases they cite were, however, often dealing with highly emotive topics, such as women's experiences with miscarriage and it could be argued that these benefit from shared experience. In such instances, a model of understanding of the research issues can be developed through empathy between the researcher and researched.

In other perhaps less emotive research spheres, informants' perceptions about researchers' background or experiences in relation to the research topic, could hinder rather than promote the development of understanding. Using the example of education program evaluation, being perceived to have some involvement with the program's development or introduction will possibly influence what program participants say when interviewed. This could affect the validity of the study. Thus, although in qualitative inquiry the identity of the researcher in relation to the research topic can be useful, it would appear that, the important thing is how the researchers' identity is managed in the research process.

In this study, my identity was particularly important because of my previous professional involvement with most of the tutors. This could raise concern about the

validity or trustworthiness of the data and its interpretation. From 1991 to 1994, as a member of the Institute of Education UCC, I had been directly involved with some in-service programmes, especially in Mathematics, aimed at improving teaching, learning and assessment in the teacher training institutions. I also worked with a team of tutors from the colleges to develop and introduce into the training colleges, a coursework book designed to guide the planning and setting of CA tasks in Mathematics. Thus, I was known to some informants and was familiar with the research setting and issues. From that point of view, I could be labelled as a partial 'insider'. These previous professional experiences in the research setting gave consequences to the different roles often assigned to me during the conduct of the research and the implications that had for data collection. Two of the roles which I identified during the fieldwork were the "expert" and "kindred spirit" role, described by Cotterill and Letherby (1994) as roles that might have effect on the research process.

Whilst in the field, there were occasions when I was viewed as an "expert" with solutions to problems being faced with CA.

> "The model of the expert often seems to suggest that the social researcher
> is, or should be, a person who is extremely well informed as to 'problems'
> and their 'solution' (Hammersley & Atkinson, 1993, p. 75).

This was sensed from both tutors and officials. The latter were particularly concerned with ways in which CA can be moderated and there was anticipation that having returned from Britain, I had some ready-made solutions. One way by which I responded to that was to help organise a workshop for a representative group of PSTT subject panellists to address some of the issues raised about CA from the preliminary findings of the research.

It introduced an action research element to the study although not in the classical sense. The workshop was however, deliberately scheduled to come off at the end of the fieldwork. The reason for that was so it would address needs identified through research and more importantly not prejudice the minds of possible informants.

In the colleges, it was important to constantly remind authorities and tutors about my research role. This required a lot of tact especially when confronted by tutors who wanted "expert" opinion about conducting CA. As I was to find out, most tutors had no special training in CA. Sharing knowledge and experiences, giving support when asked would have prejudiced the views of the tutors and so I avoided this, or when it was necessary I reserved such requests to the end of the fieldwork.

The other role identified during fieldwork was the "kindred spirit" role.

> "The kindred spirit is a role which may be allocated to the researcher by her respondents or may be one she seeks to adopt herself. This can occur when the focus of the research concerns complex experiences (or issues) which both the researcher and her respondents share" (Cotterill & Letherby, 1994; p. 120).

It became quite clear during fieldwork that some tutors viewed me as one who shared their concerns beyond mere research interest. As one tutor put it, " I hope the information we give you will be useful in bringing about changes that will ease the burden this CA has imposed" (Tutor, Wesley College). This perceived role often worked to the advantage of the study as tutors showed great enthusiasm about participating, expressing views that they felt would contribute to bringing about improvements. Although no firm promises were made, I capitalised upon it by suggesting that expressed views would be useful in addressing any future changes.

Since the Institute of Education University of Cape Coast is the examining body for PSTT in Ghana, with jurisdiction over CA in the colleges, there was bound to be suspicion about my intentions in interviewing students. It has to be pointed out that I was known as a member of the Institute of Education, especially among tutors. Obviously this could influence what tutors and students say about how they perceive CA and the way it is used.

Therefore while in the field, deliberate steps were taken to reassure informants about confidentiality and to stress that the investigation was purely for research purposes. Suspicion, as Hammersley and Atkinson (1993) point out, may be fuelled by the very activities of the fieldwork. Thus, during the fieldwork in the colleges no inspection or enquiries were made of CA mark sheets or tutors' marks record books, although some tutors voluntarily made comments about them. Had I done that, this could have raised suspicion about my intentions as these documents had often been the subject of criticism especially by the Institute of Education UCC.

The main disadvantage with conducting research in very familiar settings or using informants who know the researcher in the context of professional practice, is that 'objectivity' in the research process may be undermined with subsequent effect on the validity of findings and analysis. It was therefore important to set clear guidelines on how I would conduct myself in order to reduce any unintended influences that might adversely affect the studies validity.

The measures adopted in this study were:

(i)   That during the field research, I would not be used to provide what might be considered as "expert" knowledge advice. Any request for information that might

prejudice the opinions of the tutors was dealt with at the end of the fieldwork.

(ii)   That I would spend some considerable length of time before any formal interviewing, engaging in informal discussions about the social life of the college and on general issues concerning teacher training. Hammersley and Atkinson (1993) point out the value in doing this:

> "Especially in the early days of field negotiations it may be advantageous to find more 'ordinary' topics of conversation with a view to establishing one's identity as a 'normal', 'regular, 'decent' person ... they can throw additional and unforeseen light on informants, and yield fresh sources of data" (p. 82).

Two or three days were often spent in this activity. For example, I often asked students the question;

> "What are some of the important things you have learnt so far on your
>
> teacher training course?

The tutors were also asked about their general impressions about the current teacher training programme in Science and Mathematics. This strategy enabled me to develop an insight into some of the current concerns about teacher training which I entered as fieldnotes, and helped to put views about assessment into proper perspective.

(iii)   That I would make the selection of students for interview in cooperation with tutors. This was to avoid tutors selecting students who they probably felt or knew would not say anything that might suggest negligence or incompetence on their part. For example, during one trial interview it became clear, through the profusely affirmative

responses one student was giving to interview questions that he wanted to portray his tutors as efficient and effective implementors of CA. On another interview occasion, I found that another student, who I later identified as the school prefect perceived me as someone on some kind of 'spying' mission. Right after introducing the subject of the interview he remarked,

> *"Sir, as for our college the tutors are strict and do not give marks you do not deserve ... our tutors have a lot of problems but they try their best unlike other colleges where they 'cook' the marks"* (Student, Wesley College)

This view was completely unsolicited and suggested that the student felt I was there for reasons other than those I had earlier explained. Subsequently, with the permission of the tutors I made it a habit to invite all the students from two or three classes where I personally explained the rationale for the study. At these sessions I asked for volunteers who might be interested in speaking about their training experiences especially in relation to assessment.

I realised that adherence to these strategies described above, greatly improved the quality of the data collected, although it has to be admitted that certain factors were beyond my control. For example, it was quite possible that some interviewees might still have misconstrued my intentions given my status and position. However, triangulation of the data helped to ensure the studys' validity.

> Triangulation of data is crucially important in naturalistic studies. As the study unfolds and particular pieces of information come to light, steps should be taken to validate each against at least one other source (for example, a second interview) and/or a second method (for example, an

174

observation in addition to an interview). (Lincoln & Guba, 1985, p. 283).

A particular way by which information gathered in the study was checked for its validity was through seeking other opinion on issues in which interviewees seem to contradict each other. For example, where there was doubt about the information being given, repeatedly raising it in subsequent interviewees helped to get to the bottom of the issue. Also, interviewing students in groups of two or four helped to validate a lot of the information. (see section 5.5.3). Another useful method was the observations made of completed assessment documents, e.g. assignment books, projects etc. This helped to capture a sense of what the written assignments were about and ensure that views expressed were in agreement with actual practices.

The second field visit in January of 1997 also offered the opportunity to revisit issues for clarification and authentication and so became another means by which the trustworthiness of the data was ensured. A summary of the findings were presented to a sample of the tutors interviewed during the first field research and they were asked to comment in writing or through discussion. (See Appendix 5 for summarised statements of views and perceptions which were used for this). This added to the credibility of the study findings.

In summary, my identity was considered critical in the research process and therefore steps were taken to ensure that the data being collected was a true reflection of personal views and actual practices.

5.5   Interviewing

5.5.1. The Interviewing approach

The most important source of data collection was student and tutor interviews. This occupied a major part of the fieldwork. The semi-structured approach to interviewing was used, mainly to gather descriptive data in the subjects' own words so that insights could be developed on how CA is perceived and practised. Semi-structured interview questions based on issues identified from the research questions were partly shaped by my earlier professional involvement with tutors in the training colleges in Ghana. As pointed out earlier, I could be classified as a partial insider hence my ability to identify some of the research issues and problems in advance. (See Appendix 4 for sample of interview schedule). During the interviews however, interviewees were offered considerable latitude to pursue a range of issues which they considered relevant to the subject of inquiry. This was done to ensure that they had the opportunity to shape the content of the interview and so introduce some of their own agenda regarding the inquiry subject.

All interviewees were given assurances of confidentiality and anonymity at the beginning of each interview session.

Since the study was based on a multisite case study approach it was necessary to ensure that data collected was of a comparable nature, particularly across interview subjects. Comparability was achieved by covering similar agenda in the interviews within and across the case study colleges. This became an important reason for using the semi-structured interview approach, often formulated around some foreshadowed research issues or questions (Miles & Huberman, 1994). Additionally, the semi-structured

176

interview approach "allows depth to be achieved by providing the opportunity on the part of the interviewer to probe and expand the interviewee's responses" (Hitchcock & Hughes, 1993, p. 83). But, as Bogdan and Biklen (1992) point out, though comparability can be achieved with the semi-structured approach, one often loses the "opportunity to understand how the subjects themselves structure the topic at hand" (p. 97).

In this study, it was crucial to allow interviewees a chance to shape the content of the interview because of the complex nature of issues being explored. I took the liberty to exploit the flexibility of the semi-structured interview format and frequently encouraged free-flowing exploratory discussions aimed at capturing wider perspectives on the research topic. In so doing, I often operated between the semi-structured and unstructured interview modes. Nevertheless often issues raised by interviewees were similar to the study's agenda, although occasionally other important concerns that I was unaware of came to the fore. For example, students and tutors were very concerned about the intention of the Institute of Education to apply statistical moderation to CA and kept questioning me about the rationale behind this. The main worry was that it undermines the use of CA in the college and that it was not fair to compare CA with examination marks because the conditions were different. The Institute of Education was planning to scale CA marks onto the same mean and standard deviation as the examination marks. The way in which both tutors were reacting to this plan further revealed their frustration with not being consulted before important policy decisions that directly affected their work, were made.

Therefore the interview process was designed to recognize the concerns raised by interviewees and also cover the ground previously identified as of interest to the research

focus. Its disadvantage was the considerable increase in the volume of interview data.

A suggestion by Bogdan and Biklen (1992) about approaches to interviewing was modified and used in this study. Bogdan and Biklen suggest that:

"At the beginning of the project, for example, it might be important to use the more free-flowing, exploratory interview because your purpose at that point is to get a general understanding of a range of perspectives on a topic" (Bogdan & Biklen, 1992, p. 97).

Thus, initial interviews at the first case study site were exploratory, with considerable time spent in evaluating the adequacy of coverage of the semi-structured interview schedule and the appropriateness of questions asked. As a result minor changes, often semantic, were made and additional questions included in the interview schedule. A longer period was spent in the first case study site, mainly in pilot testing interview questions, reviewing the research agenda and modifying approaches to data collection. As Powney and Watts (1993) point out:

"Running a few pilot interviews focuses the mind wonderfully on potential data collection problems and gives the interviewer a chance to modify practices, before the investigation proper begins" (Powney and Watts, 1993, p. 125).

The interview trials also helped to practice the social interactive skills required in interview situations and proved worthwhile in approaching the fieldwork in the other case study sites.

There was an obvious possibility that respondents would give answers that merely repeated textbook ideas or official viewpoints about CA. I therefore avoided beginning

interviews with direct questions about views on CA that might have encouraged generalised responses. Instead, I tried a less direct approach by asking tutors and students to recount immediate experiences with assessment in teaching and learning contexts. I often invited *specific* examples, rather than generalised statements. For example, students were often asked to describe some assessment tasks they had engaged in during the last year and to reflect on what was useful or not useful about them. This was preferred to asking: "What are some advantages and disadvantages you have observed with the use of CA?" This could have led to rhetorical responses that might have no foundation in reality. On their part, tutors were asked to recount the assessments tasks they had used and evaluate their effectiveness. This approach proved to be very successful and helped in focusing attention on the experiences that had informed views and perceptions about CA. It also proved to be effective in capturing what actually happens as far as CA practice was concerned.

5.5.2. Method of Recording Interview Data

Recording of interviews was mostly by audio tape-recording supplemented by note-taking. The value of tape-recording interviews is widely recognised by social and educational researchers. For example, Powney and Watts (1987) point out that;

> "Using a tape recorder frees the interviewer to concentrate upon the task at hand - exploring the interviewee's account. ... 'Truth lies on the tape, it becomes objective fact through transcription, whilst the researcher's own understanding of what was happening and being said in the interview are relegated to 'unreliable' data." (Powney & Watts, 1987, p. 147).

However, audio recording has recognisable disadvantages, notably the effect it can produce in interviewees by making them "more guarded about what they say (and how they say it), especially when sensitive material is being discussed" (Vulliamy, 1990, p. 105). Other important characteristics of talk such as gestures, facial expressions and postures which give an additional layer of meaning to spoken words are not possible to capture with an audio tape (Powney and Watts, 1987). Besides, mechanical or technical problems may arise which can lead to loss of valuable information as happened on one interview occasion in the present study.

After what I considered to be a most informative and insightful interview with one tutor, I later realised (in the evening when I usually played back the day's interviews) that I had inadvertently switched the play button instead of the record button. Though the tape was 'running' I had been deceived into thinking it was recording. It was not possible to re-interview because the tutor concerned had travelled on a journey soon after the interview. The only choice left was to recall what was said and record it in my field notebook. It was however difficult to capture from memory some of the insightful ways in which the interviewee had presented his views. Thus, tape recording can have its drawbacks, as I experienced even after familiarisation with its use and features. Following this 'tragedy', I tried to summarise the key issues discussed immediately after each interview. However, this was often complicated by the need to follow one interview after the other. Nevertheless, I undertook to make note-taking an important part of all interview engagements (formal or informal).

To reduce reactivity because of the presence of a recording machine, I used a pocket size recorder with an inbuilt microphone placed unobtrusively between me and the

interviewees. A comparison of my informal conversations with students and tutors and their tape-recorded group or individual interviews suggested that the validity of the responses was not affected by the presence of the recorder.

All the interviews were personally transcribed. This proved to be time-consuming and laborious. However the process of transcription helped to fix the content of the interview in my mind creating familiarity with the data and so it aided the process of analysis.

5.5.3. Student Interviews

It is the expectation and the opinion of some educational researchers (eg. Vulliamy, 1990) that, in interviewing students in groups sometimes students 'true' views would be suppressed because they may be contrary to the views of the majority of the group. However, I found the opposite. In my experience, interviewing students in pairs and groups of four generated healthy discussion and enriched the data. The decision to use group interviews with the students was fuelled by earlier suspicion during trial interviews that students may be either exaggerating or misrepresenting the truth. Consequently, I put them in groups of two or four and stressed at the beginning of each interview that each give me an honest individual response or opinion to each question. The disagreements or agreements expressed within a group about an issue served as a useful validity check. A beneficial aspect of the group interview was also that it allowed students to engage in focus group discussions and enriched the data.

Except for one female student who declined to have her interview recorded on tape, all the other students expressed no misgivings about the use of an audiotape during

interviews. She had to be interviewed alone and did not object to note-taking as an alternative option. It was not clear why she had refused the use of an audiotape and when asked she offered no explanations. However her objection to recording the interview on tape did not seem to affect the interview discourse. She shared more candid views about the way CA has been used throughout her teacher training course and perhaps, this explains why she did not want the conversation recorded on an audiotape.

All the student interviews took place in a quiet and comfortable environment with little possibility of distraction or intrusion. Powney and Watts (1987) point out that being within earshot or sight of other people significant to the interviewee, noisy environments, and spaces liable to constant interruption can adversely affect participants involved in educational interviews. For this reason, care was taken to locate student interviews in places where they were unlikely to have any outside interference and students could talk freely. Interviews were conducted at times which suited the students and in places of their choice. Normally the interviews were held in the afternoons and in either the college's resource room or at the guesthouse where I resided.

5.5.4. Tutor Interviews

All the tutor interviews were conducted on an individual basis unlike the student interviews, which were done in groups, though there had been initial group discussions with tutors. As explained earlier, most of the tutors knew of my interest and professional background and I often attempted to use this to my advantage by building a relationship of common concern for problems of CA. In the interviews, I adopted the stance of an *'embattled colleague'* (Vulliamy, 1990) identifying myself as someone who had similar

professional concerns to theirs. This had a positive effect on the interview atmosphere with the tutors ready and willing to share candid opinions about their practice of CA. For example, some tutors willingly disclosed that they had 'cooked' CA marks in order to cope with its pressures. Most seem to welcome the idea of talking to someone about CA, particularly how it had affected their work and the strategies they had adopted to cope with its demands.

I ran into some unexpected difficulties in my attempt to seek information about other tutors' attitudes towards CA for understanding the general college attitude and the extent to which they represent shared values. Some tutors were unwilling to respond to questions that sought to seek information about how they viewed other tutors' attitudes towards CA. A few were however willing although with some hesitation. I subsequently abandoned this perhaps direct line of inquiry and sought instead to gauge the general college attitude through informal discussions outside the formal setting of an interview. I took opportunities at leisure times to get into conversation with tutors outside the primary sample identified. This proved to be helpful in shedding more light on the general college attitude towards CA.

All tutor interviews were recorded on audiotape and nobody objected to this. However at one point in an interview a tutor asked for the audiotape to be switched off since he did not want what he was about to say recorded on tape.

5.5.5. Observation

Observation as a research technique was used in the study. The focus of observation was to develop a sense of how adequate facilities and equipment were for

supporting students learning and assessment work, and also tutors teaching. Observations in this context were guided by the following key questions:

(a) What facilities are available to support the assessment of practical skill development in teaching?,

(b) What kinds of curriculum materials are in use (eg. texts, other readings) and what role do these play in the assessment process?

(c) What is the nature of seating arrangements in the classroom and what effect does this appear to have on classroom interaction and assessment activity? For example, are seats and desks movable so that they can support classroom group learning activity or assignments?

(d) One of the key areas of assessment in mathematics in teacher training is investigational work. What resources are available in the classroom to support this? For science, are there sufficient and adequate basic materials and equipment available to support the development of scientific skills as expected from the guidelines?

By living on the college campus, listening to staff conversations on the subject of assessment and reading notice boards, I was able to acquire a sense of the place and value of assessment in the case study colleges. Also, by following the example of Lewin (1990) in noting the dust on science apparatus and their general state, I assessed how frequently they were used. (see Appendix 1 for report on the state of such facilities in the case study colleges). The state of the science laboratories in particular, gave practical insights into

the feasibility of practical science assessments as required by the CA guidelines for science. All of these "unobtrusive measures" (Webb et al., 1966 cited in Lewin, 1990). provided a valuable source of corroboration or contradiction of other data collected and therefore served as an important means of triangulating some aspects of the data.

Observations also focused on student CA work samples. The key observation questions were; How had tutors marked students work and what comments (if any) had been written as feedback to students? Secondly, what do these samples of students CA work emphasise? Another important aspect was also classroom observation. Here the focus was on the nature of classroom teaching and learning, and how that might shed some insight into the choice of assessment approaches by tutors. These observations also served as a form of triangulating data obtained from interviews and documents and helped to provide a fuller picture of the culture of teaching, learning and assessment in the case study colleges.

5.6   Documentary Sources

Yin (1994) points out that documentary information is of importance to every case study topic and therefore should be the object of explicit data collection plans. Furthermore, it can serve to corroborate or augment evidence from other sources. Accordingly, documentary sources became an important focus of this study. There were two types of documents that were sought and used. The first were documents that provided more of a historical background to assessment development in teacher education in Ghana. Other documents reflected the changing focus of initial teacher training in Ghana and informed on the current policy of assessment in PSTT. Specific documents

in this category were the Report of the National Conference on Teacher Education and its Agencies in Ghana (Institute of Education UCC, 1986), the Junior Secondary School Teacher Education Project (1989 - 1993) (JuSSTEP) Impact Study Report, the Basic Education Sector Assessment School Review: Curriculum, Instruction and Teachers Report on Teacher Training Colleges, (Ministry of Education, 1995) and the Report of the Education Commission on Teacher Education, June 1993.

The second category of documents was obtained from college sources, such as the general guidelines for administering CA in PSTT in Ghana, guidelines for CA in Mathematics and Science, recommended textbooks, and students' assessment work samples. None of the colleges had developed their own local assessment policy guidelines and all of them relied on the national guideline document. An unexpected but helpful source of background information on the colleges came from two tutors who had written M.Ed assignments on the subject of assessment. One was titled, "Certifying Science teacher-trainees into the primary classroom in Wesley College, Ghana: Does the final external examination tell the whole story? (Opuni-Boachie, 1991). The other was, "Assessment in Mathematics for Certification of Primary Teachers in Training Colleges in Ghana in the 1980s and the 1990s" (Koranteng, 1995).

All of these documents aided in building a comprehensive picture of the key concerns and practical strategies adopted in resolving problems of assessment in PSTT in Ghana. They also helped to develop an understanding of the extent to which views and practices reflected policy developments in teacher training assessment.

5.7. Putting the Research Findings into Action

Whilst in the field I was asked by my sponsors and the Teacher Education Division of the Ministry of Education in Ghana to be involved with the planning of a national workshop on CA in Teacher Education. The workshop was intended to reflect the needs of the present CA system based upon my field research findings. This role was not anticipated and therefore could not be factored into the original design of the research. But, as Hammersley & Atkinson (1993) point out, in accepting sponsorship the researcher may find that the sponsoring group has certain interests which he might be expected to contribute to. This became evident after the first formal meeting with the fieldwork sponsors.

> *"We want you to 'work' for the money we have spent in sponsoring this*
> *fieldwork ... and to make some contribution towards assessment reform*
> *in teacher education from your research before you return to Britain"*
> (name withheld).

After some negotiation it was agreed that the contribution should be in the form of a national workshop to improve CA practice in teacher training based on preliminary findings of the research. Also the Institute of Education UCC, which had been charged with developing and implementing a scheme for moderating CA in the training colleges was interested in the research. All these were unexpected but later became a challenge to put the research into action. I felt that the opportunity to feed back some of the initial findings of the research was an ethical obligation and an important part of the verification process.

Thus, at the end of the first fieldwork, a proposal for a workshop was submitted

to the sponsoring group, the Teacher Education Division and the Institute of Education UCC. After minor changes it was accepted and a programme was drawn to implement it. Findings which were to offer a focus for the workshop were not based on an exhaustive and comprehensive analysis of the data as this was not possible at that stage of the research. They were mainly based on general observations and preliminary analysis of some interview data. The specific objectives of the workshop were to:

(a)   Discuss issues and problems raised about the practice of CA from a report of field research findings and, upon that;

(b)   Review the general and subject specific guidelines for CA;

(c)   Develop and produce assessment criteria to guide the marking of recommended assessment types;

(d)   Develop an action plan for monitoring and moderating CA work in the teacher training colleges.

Participants were drawn from the various teacher training subject panels which comprised subject tutors and chief examiners. The subject panels are responsible for developing and reviewing the syllabus of post-secondary initial teacher training and CA guidelines. The intention was for this group to act as the catalyst for change and to cascade recommended changes to other tutors in the colleges.

One feature of educational action research is that, "it gathers evidence about the extent to which practice is consistent or inconsistent with the aim" (Elliot, 1995, p. 1). This was in line with the purpose of this research (see Chapter 1). However, a critical

component of any action-oriented research is that it makes the observation and reflection of action an important part of the change process (Munn-Giddings, 1993). It was not possible to fulfill this in the present research, as the changes being suggested were long term changes that would outlive the duration of this research. Besides, I was not in the position to monitor any recommendations for change and work with implementors as they plough through the changes and reflect for further improvements.

Strategies for change were adopted in response to three identifiable needs of CA practice. These were organisational problems, misconceptions that relate to tutors' assessment construct and standardisation of CA procedures within and across colleges. Evidence of these are included in Chapter 6 of the thesis as part of the data analysis.

The workshop, however, presented me with the opportunity to receive general feedback on findings of the research. Thus, it became a means for judging the trustworthiness of the study and the discussions which followed the presentation of research findings suggested good agreement with the experience of participating tutors.

5.8. The search for an appropriate approach to Data Analysis

One challenge which I faced at the 'formal' analysis stage of the research was the means by which the data could be satisfactorily analysed. Going through the qualitative research literature it was clear that there is no one outstanding method or 'cookbook recipe' for analysing qualitative data. In fact, as Stake (1994) points out, qualitative "method books ... provide persuasions, not recipes" (p. 77). Approaches differed depending on the purpose and design of a particular research. Coupled with this was the lack of detailed and comprehensive analysis procedures in qualitative research reports to

guide one in considering suitable approaches. Perhaps this situation is in character with the complex and diverse nature of issues qualitative research addresses which renders its data analysis process equally complex and diverse. Nevertheless, there were principles outlined in the research literature that proved useful in developing an appropriate framework for analysing the data.

Watts and Bentley (1985) argue that in developing an approach to qualitative data analysis there is need for "methodological congruence". By this they mean that the analysis of data should be consistent or compatible with the general underlying philosophy of the research. In this study I undertook to ensure congruence between the approach to analysis and the philosophical underpinnings of the research as described in Section 5.3.

This position may be summarised in terms of the purpose of the study. The case study interest was on the experience of CA, in particular the perceptions and values attached to its practice. It was important for the analysis to focus on producing meanings and understanding of this experience. Another important dimension of the study was its evaluation focus. Viewed in education innovation terms, as indeed the introduction of CA was, it was necessary to understand what was critical for an effective use of CA in post-secondary teacher training in Ghana. In deciding on an appropriate analysis framework, the suggestions of Stake (1994) about analysing case study data was particularly useful.

With case studies, as Stake (1994) points out, the primary task is to come to understand the case through teasing out relationships, probing issues and aggregating the data categorically. Essentially, this is a thematic approach to data analysis and involves developing themes and patterns from the data (Glaser & Strauss, 1967, Guba & Lincoln, 1985). The way in which this was done in this study is the subject of the next section.

5.9. The Data Analysis Approach: Extracting Themes for the Analysis

The case study analysis report in Chapter 6 was based on a 'thematic' analysis of a set of data gathered in the form of interviews, observation/field notes and relevant documentation. The documents were of use in providing a reminder of the general philosophy and workings of the CA scheme as a whole. The data providing insights into the practice of CA came mainly from interviews and observation notes. Although there were anticipated issues investigated for understanding the analysis was not subordinate to this. Instead, I set out to construct distinctive descriptors of major themes that were emerging from the data. This is in keeping with Hitchcock and Hughes' (1992) warning that,

> "It is important to note that the materials themselves are placed against the research focus and not the other way round which might lead to forcing the materials into the researcher's prearranged ideas and hypotheses". (Hitchcock & Hughes, 1992, p. 98).

By doing so, different dimensions of the analysis emerged. For example, one of the issues which emerged unanticipated was what was termed the "Assessment for Marks Syndrome". This issue permeated most of the discussions with students and tutors and was noted to be significant in the way in which it related to other issues under investigation. This is discussed in detail in Chapter 6.

The analysis primarily involved an iterative process of reading, reflecting and coding the interview transcripts and then drawing out the major themes and patterns of views. It essentially involved inductive reasoning and in some respects reflected the constant comparative method of analysis (Glaser & Strauss, 1967) as described by Maykut

and Morehouse (1994, p. 126-147). This involved asking pertinent questions of the data (or 'interrogating' the data) as I examined them with questions such as:

- What are the recurring words, phrases, and topics in the data?

- What are the concepts that the interviewees use to capture what they say or do?

- What emerging themes or patterns can be identified in a phrase, proposition or question? (Maykut & Morehouse, 1994).

- What assumptions underlie what tutors and students say about assessment, teaching and learning?

It has to be noted that not all the interview data were helpful in this respect. There were certain portions that offered little or no insights into the research focus. Subsequently, these were discarded, however, they were not many.

The actual data processing involved, cutting out sections of interview data on a particular subject or theme, grouping them for description and analysis (Bogdan & Biklen, 1992). I typed all the interview data onto a computer and produced two copies for the analysis. Various sections of the transcribed interview data were cut up under different topics and themes and the issues they addressed were summarised and used in the write-up of the analysis. I constantly referred to my field notes for clarification on some interview statements and also went to and fro in the transcribed data to gain understanding of the issues emerging, draw connections and conclusion. The result is Chapter 6, the analysis of research findings.

To summarise this section, the principle behind the formal analysis stage is that of,

reconstructing the data to answer the questions posed by the research. As it is a qualitative study the researcher's values informed this process of analysis. In fact, I was as much a part of the research 'content' as my interviewees, as on some occasions, it was pertinent to contribute to the discussion in an attempt to engage in more constructive discussions. Thus, the analysis was informed by the way I sought to construct the meaning of issues as I came to understand them and by my objectives for the study. As pointed out by Powney and Watts (1987),

> "An analyst of interviews does not merely recognise facts and phenomena present in the responses of the interviewee. Rather on the basis that we perceive things from a point of view, our intentions inform our attention. That is analysis is a *reconstructive and not a reproductive process*". (Powney and Watts 1987, p. 162, my emphasis).

5.10. Writing the Case Study Report

The case study report consisted of three important aspects. One is contained in Appendix 1 which is a profile description of the case study colleges. Features and characteristics of the colleges which help to put the substantive issues (ie the main analysis of findings) into perspective were noted. In that respect, the description had to be selective.

The second aspect is the main analysis in Chapter 6. The findings are reported and analysed based on data pooled across all the three case study colleges. In other words, it was not restricted to one site but involved a cross-site analysis. Nevertheless, issues peculiar to one site but not to others are noted where relevant and their significance explored and discussed. The key findings are supported, for the most part, by illustrative

quotations.

Thirdly, a discussion of the key outcomes of the study is reported in Chapter 7. This includes the lessons learned, personal reflections and recommendations for further research. Some shortcomings of the study are also noted. Also included are suggestions for improving CA in PSTT in Ghana.

It was sometimes necessary to edit the interview transcripts to help to provide clarity and brevity. Thus, sometimes I reworded or rephrased sections of interview quotations to help in clarifying the meaning of what was being said. This was necessary because often the interviewees used local jargons or colloquial phrases that might have been difficult to understand by an unfamiliar audience. Actual quotes were used to provide evidence of the views expressed. In selecting the quotes, I took into consideration the relative emphasis they gave to particular issues and views on those issues. Often more than one quotation was used to show the variety in the way interviewees shared a common view or the kind of emphasis they gave to a particular issue. Together, these quotes served as an index of validity for the study adding credibility to the issues that emerged from the analysis.

The role I played in the whole research process was central to the production of the case study report and analysis. The review of the relevant literature played an important role in the construction of meaning from the data. Parts of the analytic process involved applying concepts or issues from the literature review to the raw data in an attempt to make meaning of them (Hughes, 1994). Thus, portions of the reviewed literature (Chapters 3 and 4) served to illuminate the issues being discussed in Chapter 6.

The literature review represented my own journey of understanding into issues of

assessment that were, in my opinion, important to the consideration of assessment in teacher training in Ghana. In Chapter 7 of the thesis, I draw on some of this understanding to make recommendations for improving the system of assessment in Post-Secondary Teacher Training in Ghana.

Although I was not involved in the initial process of introducing CA into PSTT in Ghana, I had gained some partial insights into some issues that were under study through later work in the training colleges. This meant that I came to the study with awareness of issues and certain insights that a complete outsider may have had to spend longer time in the field to come to understand. Often this awareness informed the different stages of the research process, mainly, the data collection phase, the analysis, explanation and presentation phase and finally the case study analysis report.

CHAPTER 6

THE ANALYSIS OF THE CASE STUDY FINDINGS

6.1. Introduction

In this chapter the case study data across the three colleges is presented and analysed. The data represents information collected on two field research visits. The discussion brings together views expressed by key officials, tutors and students analysing them for their central themes and implications. These views are also contrasted with observation notes made during the case study research and also documents collected, in particular the policy document for administering CA in the training colleges. Another important source of data used for the analysis was the sample of tutors' CA tasks and students' work. Together all of this formed a rich source of data upon which the analysis was based.

Brief descriptions of the case study colleges, the departments and the staffing situation are presented in Appendix 1 of the thesis. These profiles of the case study colleges are intended to provide background information on the individual characteristics of the colleges.

6.2 Constraints on the Effective Practice of Continuous Assessment

CA requirements for the teacher training context demand much effort for tutors to set appropriate tasks and then mark them and a lot of time for students to gather relevant professional learning experience and display that in assessment. There were many

views expressed and observations made to the effect that these were difficult to meet.

Generally the official view was that the problems of CA were mainly because tutors had misunderstood its intended purpose for teacher training and were therefore not applying it appropriately. There was also the view that many tutors in the training colleges lacked competence in assessment and that this had largely contributed to the problems it faced in the colleges. A sample of the views expressed concerning these perceptions was as follows:

"I think there is a problem with the understanding of the CA. Tutors were to take into account their observation of students' learning, participation and contribution. It is supposed to reflect the whole scope of their professional learning experience but I don't think this is what is happening" (Director, Teacher Education Division)

"Tutors appear to have completely put aside what is being advocated by the new assessment policy, ... I am afraid some tutors are still interpreting it as special assessments just like the examinations, instead of basing it on training activities" (JuSSTEP, subject advisor).

"What we were expecting was for the tutor's assessments to reflect the new methodologies introduced through the reforms ... make the assessment of students more directly related to the training, but this is not happening very well" (JuSSTEP subject advisor).

The case study showed considerable evidence which confirmed as alleged that tutors were not using CA fully for the purposes intended in the official guideline document. However, the evidence also showed that the ineffective use of assessment for teacher training purposes was not entirely a problem of tutor competence in assessment or misunderstanding of its implementation. The issues are much more complex than the

official views otherwise suggest. Although, in any scheme of assessment teacher competence is an important ingredient the research revealed that certain conducive conditions and logistics are critical before there can be effective implementation of the scheme. For example, CA practices which require evidence of professional ability also require that students are given a wide range of learning experiences and under conditions which will allow them to collect a wide range of evidence to meet the expectations of these assessments. The case study evidence indicated that this would be too much for the given time frame of the teacher training course. There was ample evidence showing that time constraints contributed to determine the kind of assessment activity tutors were willing to engage in. This was acknowledged in the comments and views expressed by tutors and some officials connected with the reforms in the colleges.

"Until you do something about the college year and get some more time in the classroom and then structure your course so that you have reasonable participation from students, followed by practical experience or you have practical experience followed by tutors taking it up and making that the basis of exploration and discussion, I do not think CA will have the professional effect we intend" (JuSSTEP subject advisor)

"...if you want to do effective work you cannot do more than five topics, even five topics is too much, to take students through one learning activity could take you about two weeks before you set an assignment, with the large number of students and limited time you find that you cannot do justice to what you are expected to do, ... that is the real situation" (Tutor, Wesley College).

"If we can get a significant change in the college year to allow more time in teaching, then I think assessment will fall into place the way in which we want it..." (JuSSTEP subject advisor)

An analysis of the college year is presented in Table 6.1 below. The table makes

it starkly clear the inadequate time frame for both instruction and assessment. For example, it shows that for the three years of training only about a third of that time can actually be spent on activities of training. (This works out as 37 weeks out of a total of 99, the bulk of which is in the first year of training). This means that in reality students spend only a year out of the total of three years in actual classroom teaching and learning

TABLE 6.1:   The Break Down of Official Term Time in Case Study Colleges

Term	Official Term Time (Weeks)	Approximate Contact Time for Classroom Teaching and Learning (Weeks)	Exam Time (Weeks)	Other Events/Activities (Weeks)
1	12	Year 1: 10 Year 2&3: 6	- -	Year 2&3 TP: 4 Orientation/Settling in: 1 Mid-Term Break: 1
2	11	Year 1: 7 Year 2&3: 3	2 2	Year 2&3 TP:4 Exam Preparation: 1 Sporting Events: 1.
3	10	Year 1: 7 Year 2&3: 4	2 5**	Exam Preparation: 1
TOT AL	33	Year 1: 24 Year 2&3: 13	Year 1: 4 Year 2&3: 7	Year 1: 5 Year 2&3: 13

Notes:
**Three of these weeks are spent in taking the Institute of Education University of Cape Coast External Examinations

contact with tutors. Consequently, the quality and quantity of assessment suffer because of insufficient time to develop learning experiences that would become the foundation for good assessment practice. For example, it was found that with pressure to complete the syllabus and prepare students for certification examinations, tutors were less inclined to

give assignments which require extended time to complete and which depended upon the use of heuristic instructional approach. Yet the guideline document emphasised that extended assignments were to form the main part of the CA mark and was to be given precedence in all matters of assessment (see, General Guidelines for Administering CA in Post-Secondary Teacher Education, GES, 1992). Most tutors saw heuristic teaching approaches and extended assignments as time-wasting, explaining that this was because of the problem of teaching a large number of students in a relatively short time for the external examinations. Thus, the short period of the teacher training course meant that the use of assignments that emphasises the professional related aspects of the training had been greatly reduced. (This issue is discussed further later in the chapter).

Not surprisingly, under such time constraints tutors were finding their own means of satisfying CA requirements and this was often by relying on short classroom tests and quizzes. In effect, what tutors were saying was that the requirements of the guidelines for practising CA were unrealistic given the conditions in the colleges.

> *"I don't think those who planned the guidelines were fully aware of the problems we face, they don't have to apply all these recommendations, even if you want to do a good job, it is just not possible if you look at the number of students we have to assess and the time we have available in a term to teach and assess students"* (Tutor, Akrokerri, Training College)

> *"We don't work with the guidelines because what the guideline is expecting from us is difficult to do ... I think they are good ideas but if we are to fulfill all the requirements, then it will mean assessing all the time, when do you get the time to teach ... it is simply not practical"* (Tutor, Wesley College)

One JUSSTEP subject advisor analysed the problem this way:

"Suppose a tutor wanted to do a demanding assignment where instead of some written test students have to do a practical piece of work. This can take about two weeks to complete, how do you do that with limited time and pressure to complete the syllabus ... so sadly the kind of thing everyone does is what is convenient and fits in with their teaching approach and time available in the term for the course" (JUSSTEP subject advisor)

The time constraint appears to be a particularly serious problem as many tutors interviewed justify their inability to do adequate or appropriate assessment on these grounds. As a result some tutors felt there was no other alternative but to cut corners in trying to meet official requirements of the CA scheme.

"My strategy is to give about three assignments and assume the others will follow the same pattern, so I estimate the rest of the marks from the three assignments" (Tutor, Wesley College)

"Informal assessments help you to predict students' performance so you can do, say three assignments and from the marks of these you estimate the rest ..." (Tutor, Akrokerri Training College)

"... even if you are to conduct five assignments and you share two assignments each term it becomes a problem since the third term is effectively used for examination preparation, you are therefore forced to estimate some of the performance, ... the problem is the time" (Tutor, Presbyterian Training College).

In a study examining teachers' perceptions of the barriers to the implementation of a pedagogic innovation, Morris (1985) found that factors weighed by teachers was the practicality of the innovation and their congruence with prevailing conditions. He found that "the need to cover the syllabus in the time available" (p. 16) was one of the main influences on teacher's pedagogic and assessment approach. Morris concluded that the

decision of teachers not to use innovative approaches was a rational choice among alternatives. The case study evidence in this thesis leads to a similar conclusion. Tutors were making what they considered to be a rational choice in the face of severe limitations imposed by large student numbers and limited time. Coupled with the need to complete the syllabus before the external examination there was very little interest in "new" assessment approaches that would take any more of the limited time.

Another dimension of the problem of limited use of CA methods was the absence of a management support system within the colleges to support tutors in their work. Tutors were interviewed to look for evidence that support structures existed to help them overcome problems with CA practice. All the tutors interviewed acknowledged the need for a system of support for their work but there was no evidence that any such system exists in any of the three colleges. In theory, the structure for management support had been outlined (see Appendix 3), but there was no evidence that this was functional.

CA can become a complex exercise especially where assessments are to cover a wide range of professional learning outcomes. Meetings to review progress, clarify procedures and discuss constraints limiting its effective use and subsequently develop strategies for improving its practice are crucial. In all the case study colleges there was evidence that a lot of this was lacking because of the absence of a system of management support within the college and departments. For example, none of the Mathematics and Science departments in the case study colleges met regularly to review their work. As one tutor pointed out:

> *"Your meeting with us is the first time we have met to discuss some of the problems we face in implementing the CA"* (Tutor, Akrokerri Training

College)

Another tutor in Wesley College revealed that:

"Even when we meet it is to talk about problems about filling in CA record forms and about sharing the areas of the subject for teaching" (Wesley College)

Mainly, the blame for the inoperative management support system was put on Principals or Vice-Principals who were accused of not living up to their professional responsibilities.

"I think the main problem with this CA is that Principals in the Colleges lack the professional commitment and leadership qualities to encourage and support tutors to do the assessment properly ... the problem is supervision ... some Principals are even afraid of their staff ..." (Director, Teacher Education).

Such allegations raised questions about the impact of the training provided to key personnel in the colleges to facilitate good management of the teacher training programme, including CA. The report of the ODA JuSSTEP Impact Study (1993) revealed that workshops on management skills were organised for Principals, Vice-Principals and Heads of Department at the inception of the JuSSTEP reforms. A supporting Handbook for Principals (December 1992) was developed to provide guidelines on the development of organisational and administrative structures at the college and department level. As the study pointed out, these structures were meant to enhance communication and inter and intra-departmental cooperation to specifically benefit the administration of CA (ODA/British Council, JuSSTEP 1993, p. 25).

203

The case study produced comments and evidence that suggested these changes and training had made little impact. As far as Institutional support for CA in terms of offering professional guidance to review practices the evidence showed that this is virtually non-existent. A similar finding was made in a study commissioned by the Ministry of Education (Ghana Ministry of Education, June 1995) to look at, among other things, college/departmental management support systems. The authors of the study found that a major shortcoming of innovation implementation in the training colleges was the lack of good management. The study recommended that efforts should be made to increase and improve management training workshops and put into place a system of *external* monitoring/moderation to enhance quality and efficiency in the colleges. Such recommendation make good educational sense; however, the findings of this research suggest that a fundamental problem is that of tutors' own perception about collaboration at the departmental management level. Of course, one could achieve greater efficiency by providing more training to ensure that everyone is aware of their role and responsibilities, provide supervision or external moderation of the CA to achieve greater quality and reliability. However the responses from some tutors suggested that the problem was more deep-seated and had to do with concerns about the possible consequences of internal monitoring on relationships. The evidence was that the problem of poor management stemmed mainly from a break down of intra-departmental cooperation because of concern about the implications on staff relationships.

For many tutors, any act of supervision or quality control by the head of department or other staff would have been interpreted to be a message of distrust and therefore an affront to their professional integrity. Asked the question, "what support

have you received from your college in carrying out the CA?", all the tutors said that professional support had been totally absent but went on to offer reasons that exposed the conflicts making this difficult, especially from their colleagues.

> *"Some tutors do not like the Head of Department asking questions about their CA work, ... because they feel he wants to exercise authority over them, and this breeds tensions. Because of this it is difficult to supervise CA in the department, so everybody does what he feels."* (Tutor, Akrokerri Training College)

> *"... in the first place we are equals, so you can't put pressure on people to do what they are expected to know and do ... some tutors are not serious with the CA but if I want to inspect their work and offer advice they feel I am being too strict ..."* (Head of Department Maths, Wesley College).

> *"You cannot sit with other colleagues and make comments about their work because this may affect your relationship with them. It may also affect me since if I am 'killing' myself to work hard and I find out others are not, I'll feel cheated. It's better not to know what they are doing. I think it is the responsibility of the Head of Department to supervise our work, not other colleagues ... if I comment I'm likely to cause some damages and it could cause disorder in relationships ... I've no business here"* (Tutor, Wesley College)

Clearly, some tutors are very sensitive to any measures or procedures that in their view could cause friction between themselves and colleagues. This is a major limiting factor on promoting effective intra-departmental management of CA. Most tutors' idea of internal monitoring lacks that important professional and collaborative dimension where the aim is to cooperate to help each other in implementing the CA scheme.

In summary, the constraints affecting the effective use of CA in the colleges are the result of several inter-related factors as discussed above. For example, its effective implementation is limited by the high student-tutor ratio (which was on average over

100:1 in the colleges, see Appendix 1) which leads to a high number of assessments per student and thus discourages tutors. The research also identified the following as critical limiting factors: insufficient training contact time which limits the use of pedagogical changes such as group work, team work and thus reducing use of assessment approaches that reflect such strategies, lack of intra-departmental collaboration on tackling problems of CA because of worries about the effect it might have on professional or social relations.

To make CA more effective in teacher training colleges will mean giving more serious attention to resolving these problems.

In the next section the case study students and tutors views about the CA scheme are examined with explanations offered on their perceptions.

6.3   Views about the Role and Purpose of CA in Teacher Training.

There was a view shared by most students and some tutors that CA is for helping students pass the certification examinations and therefore it was to be applied to achieve this purpose. This seems to have created the impression in some students that it requires minimum effort and in some tutors minimal planning attention. The following statements illustrate students perception about its purpose:

> *"I think the CA is to help us pass the exams because here you are given marks for the CA which will help raise the marks in the external examination"* (Student, Akrokerri Training College)

> *"We have been told by our masters that CA is important because it forms part of our final exam ... and it will help us pass"* (Student Akrokerri Training College)

206

"CA is to help us redeem ourselves before the final examination ... lets say you get 20 over 40 in CA and the exam you get 30 over 60, you see the CA is going to push you up, so it is there to help us pass" (Student, Presbyterian Training College)

Similarly, a sample of tutors' views expressing understanding of the CA was:

"It is a way of helping students out of this one shot examination because CA embraces all that the student does during the year. It is a way of helping students especially those who are academically weak to pass their exams" (Tutor, Presbyterian Training College).

"In fact the reason we have CA is to help students pass ... the one shot exam cannot decide the fate of someone who has been in the college for three years, so there should be CA to tell outsiders what the student can actually do, so that whatever the student gets can help them pass" (Tutor, Wesley College).

These views clearly suggest an underlying conviction that the CA is not viewed simply as a mechanism for promoting students professional learning and development. Instead, it is there purposely to improve students chances of meeting the qualification criteria for teacher certification. The comments also suggest that the value attached to CA are more high-stakes than formative and developmental. In fact, most of the tutors cited the examination as the main influence on their assessment work and most students referred to this influence as the main benefit of the CA.

"By the CA we can know some of the questions which will 'drop' in the final exams ... " (Student, Akrokerri Training College)

"CA has helped us to know the trend of exam questions and the things we are likely to be asked in the final exams" (Student, Wesley College)

However there are others who feel it is to serve both the purpose of promoting learning and preparing students for the certification examinations. Clearly, not enough is asked of students if CA for examinations defines its main purpose. As it turns out, some students considered assignments or tasks which did not sufficiently reflect the external examination requirements as a waste of their learning time. These students wanted and expected the CA to be about preparing them for the external examinations and disliked attempts by some of their tutors to introduce assessments that were not similar to the examinations. For example one student's view on this issue was expressed as follows:

"The CA must follow the examinations or else why are we doing it?"
(Student, Akrokerri Training College)

However another student in Akrokerri Training College disagreed with this view and felt that it was not the purpose of teacher training to "just pass an exam", but to train "to become good teachers." Nevertheless, most students interviewed felt that in one way or the other the CA must have links with the examinations.

Some tutors expressed the view that CA served the purpose of improving students learning. However, their views suggested that they had very little understanding of how it might do that or how it can create opportunities for improving learning. The general perception regarding the educational value of CA was as one tutor put it:

"It has been introduced to help the students monitor and improve their work and help us to know those who are good" (Tutor, Wesley College)

As is discussed later, generally, the way CA was perceived to help students was mainly

through the evidence of marks from assessed work. In other words, the marks from assessment were seen as the organising framework for learning improvement - it served as a source of external motivation to promote learning. A few tutors interviewed reported that they had come to appreciate the value of assessments that required students to show greater commitment in learning. Some of the changes adopted by these tutors included the introduction of small group discussions, case study reports of pupil learning difficulties and problem solving activity. However, most tutors understanding of assessment for improving learning were not particularly in terms of the tasks themselves promoting intrinsic commitment from students to learning. Instead, it belongs with a conviction that creating a situation where students are 'forced' to spend time learning because of an impending assessment will help to improve their performance. The expression that was used repeatedly to describe how assessment can improve learning was, "*it forces students to study*". Such a perception of CA is in sharp contrast to one in which focus is on the opportunities the assessments themselves provide for students to engage in "deep" learning approaches (Ramsden, 1992; Marton & Saljo, 1976; O'Neil, 1995; Butler & Winne, 1995). In fact, very few tutors articulated a conception of CA practice in which the emphasis was on adopting assessment strategies "in which the (student) gains awareness of his/her own learning strategies and efficiency" (Gipps, 1994a). It could be argued that although assessment can promote extrinsic motivation for learning, what would help students to develop their learning comes from using some specific assessment strategies (Biggs, 1996). As Broadfoot (1996) has rightfully stated:

"the type of assessment we use will play a large part in determining the learning attitudes and strategies that learners adopt, and also in influencing

the extent to which learning, whether in school or in professional settings, offers the opportunity to develop learning ability" (p. 32).

Thus, for example, students studying to write a multiple-choice test are less likely to engage in optimal learning strategies than if they were to investigate or solve open-ended problems.

These 'missing' issues in the case study raise serious questions about the adequacy of the CA scheme for teacher training in Ghana. The research produced very little comment on what for many teacher educators would be a central issue of concern about assessment in teacher education, notably, assessments in which the learning outcomes for the student included the development of: " .... metacognitive skills, independent learning, critical self-evaluation and group participation skills" (Klenowski, 1997). A reasonable explanation why this does not feature prominently in tutor views and insights into assessment practice was because assessment in teacher education in Ghana has not been conceptualised to embrace these notions. As the evidence discussed in section 6.4 illustrates, the main emphasis of the CA scheme for the teacher training level was to provide marks for national certification purposes. The focus on "assessment for marks" was the dominant theme of the CA scheme and that, it appears, has overshadowed a professionally relevant level of understanding of assessment for student teachers. In fact, some of the tutors felt the introduction of CA has not brought any significant changes in the way assessment was previously carried out. The following tutor's comments tend to sum up this view:

> *"Nothing has really changed, it is still the old system and the old ways of assessing but with a new name, 'continuous assessment'* (Tutor, Wesley College).

210

It is fair to conclude from the case study evidence that CA in teacher training in Ghana does not sufficiently emphasise assessment strategies that provide a new perspective on learning. The main perception of the tutors was that assessing the student "continuously" is an inherently useful educational exercise that can improve student learning. Nevertheless, it is fair to add that this perception reflected the emphasis given by the CA scheme for teacher training in Ghana. Therefore, it would be misleading to suggest that tutors were unappreciative of assessment strategies that provided students greater opportunity for improving their learning strategies. These views are set in a context in which tutors generally welcomed assessment strategies that will improve students learning strategies. However, the wider case study picture suggests that mitigating circumstances (eg. exam pressure, large student numbers, demand for marks from college administration and the teacher training examining body), constrain tutors to adopt traditional assessment practices over the more learning-related assessments. The issue here is that the attitude of tutors to the CA parallels the kind of emphasis the whole system of teacher training gave to the assessment of student teachers. The implication of this is for the assessment system in teacher education in Ghana to shift the focus onto strategies that support the development of learning-related outcomes, rather than the measurement of learning.

The main worries of most case study tutors about CA is that they are not assessing frequently enough and therefore are failing to meet the number of assessments demanded in the guidelines. Although this may be a legitimate concern it has led to practices that clearly undermine the credibility of the whole CA exercise.

"... It is difficult to conduct all *the assessments required under the CA scheme so sometimes some tutors are forced to 'cook' marks"* (Tutor, Akrokerri Training College)

" ... Sometimes what I do is I give an exercise or test and use the marks from it to estimate what the student will get in say the assignments ... I assume that the others will follow about the same pattern" (Tutor, Wesley College).

Another issue raised in the case study colleges relates to using CA to adjust the student's social and learning behaviour for the better. The way in which most tutors did this was to withhold dates of assessment from students with the belief that the uncertainty of not knowing when an assessment was due will encourage regular studying and class attendance. As a tutor at Akrokerri Training College pointed out about not letting students know when they will be assessed:

"It keeps them on their toes, otherwise, they will be lazy and not work hard" (Tutor, Akrokerri Training College)

Another tutor recounted the marked difference in student's behaviour as a result of the introduction of CA:

"It has curbed the incidence of students leaving the campus to do their own business such as trading, ... some students used to go as far as Togo (a neighbouring country) *to buy things to sell. They felt they could just study when the exams were approaching, come and write and pass, because of that they wouldn't attend classes. Now they know if they miss CA it will go against them so they are forced to stay in the college ..."* (Tutor, Wesley College)

In fact, many tutors saw this as one of the most important evidence of the usefulness of

the CA scheme. As a tutor in Wesley College put it, "*the introduction of CA has brought sanity into the system and made everybody tick,*" by this he meant both students and tutors had become more accountable. Another tutor discussing the usefulness of CA said it had ensured that students participate in activities that previously they cared very little about and were unwilling to participate in. For example, he had noted that:

> "*... students now take the science kit box construction seriously because they know that in awarding marks we consider attendance. Other than that most of them will not turn up and will get their friends or hire a professional carpenter to construct the science kitbox*" (Tutor, Wesley College)

On their part, students admitted that the introduction of CA had indeed contributed to improving their study habits, encouraged them to attend classes and take more seriously what they were taught. Quite understandably, some students expressed dissatisfaction with the practice of not giving sufficient notice about when an assessment was going to take place. In their view this does not allow them to give their best performance because of inadequate preparation.

> "*The tests and quizzes are often impromptu, our tutors say they can assess us anytime without notice... this is not fair because most of the time we are not very prepared*" (Student, Wesley College)

> "*CA is not meant to fail students ... but sometimes we get surprise tests from areas we have never been taught so it doesn't indicate our true ability*" (Student, Akrokerri Training College)

There was evidence from observation and comments that assessment was often sporadic and bore very little relationship to topics that were being treated in the

classroom. CA was not really "continuous" in the sense of frequent and systematic assessment over a teaching and learning period. This was because, as the comments above suggest, many tutors had found a *different* role for it. As the research revealed, what was really valued about the introduction of the CA had very little to do with, for example, its use for formative assessment. From the views expressed the main things valued about the CA could be summarised as follows:

- Because of CA students were now making the effort to attend classes.

- It has provided extrinsic motivation for students to study.

- It has compelled tutors to put more effort into assessing their students because as one tutor put it, "we are duty bound".

- Students were now paying more attention in class because they know at any time they could be assessed on what was being taught.

The implication of these findings is that users own "legitimate" concerns in relation to the context in which the CA scheme is to be practised will play an important role in deciding how they use CA and for what purpose. If the way in which they use it does not conform to the intended expectation of the scheme, this may not necessarily be a failure to communicate its meaning, instead that users find more "appropriate" uses for it. This implies that in introducing a new assessment scheme there is the need to consider more carefully the possible concerns and preoccupations that may influence its use and limit its intended impact. This is why this research is so important, because it attempts to understand some of the critical concerns within the local college environment that might

affect how and why tutors carry out assessment. Unless these are understood and given serious consideration during the planning and introduction of new assessment schemes, 'new' assessment strategies will continue to fail to make the desired impact. In making recommendations for change, therefore, serious consideration needs to be given to the conditions and circumstances which might constrain the way in which the assessment scheme will be implemented. Some of the questions that need to be tackled are:

- What are some pressing problems of the school environment especially regarding the work of teachers and how might this affect the effective practice of assessment?

- What should be done to improve conditions before or as the assessment scheme is being introduced?

- How can the assessment scheme contribute in other ways unrelated to its original purpose without the risk of losing its focus?

An interesting view shared by a relatively large proportion of students was that the marks from CA are not used in the certification process. This came as a complete surprise because, as a member of the Institute of Education, I knew that this could not be true. However, these students stated what they felt was supporting evidence of the fact that CA marks are not always considered in the process of teacher qualification decisions. Mainly, their evidence was that they were aware of students who had not taken part in some CA work and yet had passed creditably. Others felt they had done well in CA and yet this had not reflected in the outcome of their second year overall results. The net result of this

uncertainty about whether CA counts towards certification or not is that some students were becoming disillusioned with the CA with consequences on the effort they put into it. As these two students commented:

"... many of us are not very motivated to take part in the CA because at the end of the day we are not sure whether it will be used or not" (Student, Wesley College).

"In fact, it is hard to tell whether the Institute uses the CA results, we learn that if it does not make much difference to your final results it is discarded. If you are not doing too well, then the CA marks will save you ... but we don't really know whether these marks are used ... this does not motivate some of us to take the CA seriously because after all it may not be used ..." (Student, Akrokerri Training College)

There was evidence that although the guidelines for operating CA had laid down procedures for aggregating marks, not all tutors applied this consistently. Most tutors admitted that not all assessment work is marked and not all marked assessment was used as part of a student's aggregated CA score. This explains the confusion in the mind of some students over whether CA actually contributes to the certification process as it was not clear which result of assessment makes up a student's CA record. It is reasonable to conclude that the lack of consistency and clarity over applying the CA scheme is a contributory factor to the doubts some students hold about it.

Finally, both tutors and students expressed concern about the lack of control over what happens as far as CA is concerned in other colleges. There were requests for the introduction of externally prescribed assessment tasks for all teacher training students to engage in for fairness. The case study evidence showed an interest by both tutors and students to move towards a more prescriptive CA system in which every student did the

same kind of assessment and under similar conditions. It is fair to add that this interest had gained currency because there was no system of moderating or monitoring CA in the training colleges.

It could be argued that a certain amount of prescription is necessary, but this could lead to the CA becoming another form of examination thus limiting its use for formative assessment. A compromise would be the provision of a flexible set of assessment criteria to guide the marking of assessments. It will have the advantage of helping to promote consistency and fairness in the marking of CA work and simultaneously provide the yardstick for moderating these assessments.

In summary of this section evidently the views about CA and attitudes towards it have been influenced largely by factors such as: local college conditions which drive tutors action, the summative focus of the teacher training assessment system, and the lack of clarity in practice and understanding of CA. The way in which CA is perceived and practised leaves considerable room for question about whether it has made any significant impact on students' professional learning and achievement. The findings clearly point to the need for a review of the CA system in teacher training in Ghana, particularly its conceptualisation and implementation. This is to ensure that the focus is equally on process, as much as on summative outcomes, to ensure the quality of professional learning and most important that both tutors and students have a clear and consistent understanding of its purpose for teacher training.

One of the more pervasive views emerging from the case study was what I termed "the assessment for marks syndrome". Time and again, as I talked to students and tutors there appeared to be a perceived narrow and restricting notion that the main purpose of

the CA is to generate marks for external use. This view came across so strongly that it merits separate discussion to understand the underlying influences causing this belief, and forms the subject of the next section.

6.4   The Assessing for Marks 'Syndrome'

Both tutors and students alike felt that in its current form, the CA scheme was intended mainly for providing marks for the Institute of Education University of Cape Coast to reach certification decisions. At the Presbyterian Training College, one tutor's comment encapsulates this common feeling:

> *"Currently, the assessment I think is geared towards getting marks for the students ... I don't think we are laying much emphasis on anything else ... even Cape Coast* (referring to the Institute of Education at Cape Coast) *focuses on marks, there is even no time to talk about the other uses of assessment, ... when you look at the Guidelines it is all about how to record marks,* (My comment: This is not entirely correct) *so the impression you get is, that is what is important, the marks"* (Tutor, Presbyterian Training College)

This was a view shared by students too many of whom went on to suggest that this was actually what the present assessment system required.

> *"We hear them (tutors) saying 'you need to do the assessment to get marks for the Institute, so we think it's only for marks ... it's a formality and not how to help us to improve ... the whole thing is for marks"* (Student, Akrokerri Training College)

> *"I know that the CA is supposed to help us in those practical areas of the course, that is what I think is important, ... but at the end of the day I have to pass the exams to qualify to teach and it is the CA marks that will help me so I am more interested in getting good marks ... this is what the system wants"* (Student, Presbyterian Training College).

218

Another student speaking about their Science Kitbox assessment added that:

> *"We spend so much time making the kitbox for assessment which we will
> not use anyway ... we do these kitboxes for marks and after that we forget
> about it because we don't see it being used by those ahead of us and also
> by our tutors, we are just doing it to gain marks after that we forget it, ...
> the whole assessment thing is for marks"* (Student, Wesley)

It was evident from such views and other observations that the need to provide marks completely dominated the assessment agenda in the colleges. The whole practice of CA focused on this and again raised the question about whether any gain was being made from it professionally. Focusing solely on marks to credit achievement in a teacher training context could limit the validity of the CA as only those learning outcomes that can be assessed quantitatively receive the attention of assessment (Sadler, 1989). There will almost certainly be instances in the professional learning process where scoring performance numerically will have no clear professional meaning or significance, for example, communicating ideas and information, planning and organising activities. Such areas will therefore escape the attention of assessment. The focus in the colleges on assessing for marks could therefore limit the learning outcomes for students from their involvement in CA.

The CA Guidelines document recommends that professional qualities of teacher development such as: "hard work, good organisation, good presentation and explanation, and an ability to instill interest and enthusiasm (Ghana Education Service/Teacher Education Division: Guidelines for CA, 1992) should receive more credit in the assessment process." Yet no provision is made in the CA scheme to give credit to these qualities and to report them for assessment. As Moon & Mayes (1995) point out, it is

important to integrate values into the structures of an assessment scheme meant for initial teacher training because:

> "(it) ... ensures a holistic approach to assessment and one that emphasises the unique significance of preparing for entry into (the teaching) profession" (Moons & Mayes 1995, p. 240).

It would be important for instance, for students to see that affective qualities and values contribute to reaching decisions about readiness to teach. The case study showed that there was very little awareness of such issues in the assessment milieu. Only two tutors showed concern for these issues, one of whom commented as follows:

> *"There is no point scoring high marks and passing when the assessment tells us very little about the student's character and teaching qualities. I feel our assessment is one-sided focusing on conventional methods for the sake of marks ... we need to develop and use other methods which can tell us more about those we train, ... what do we gain if at the end of the day the teacher who scores high marks is lazy and not responsible to his duties?"* (Tutor, Wesley College).

The point of this comment is that assessing solely for marks undermines the validity of teacher training assessment and could give the student a misleading picture of his/her teaching capabilities. As well as doubting the value of a mark as the final arbiter of teaching qualification, relying solely on marks overshadows the areas of weakness or strength of the student (Sadler, 1989). Besides, aggregating scores from various assessments without clear description of the professional learning domains they represent makes the total score difficult to interpret in terms of what has or has not been achieved. This was clearly a problem that I faced in trying to make meaning of the student's CA

marks.

Some students perceived that the marks from CA provided a means for gauging their teaching readiness as the following two comments illustrate.

> *"The marks you get from CA give you a good idea about whether you have got the skills of teaching, ... you are able to know whether you are improving to qualify to teach"* (Student, Akrokerri Training College).

> *"CA marks tell us about our readiness to teach ... it gives you some idea about whether you will make it (to teach) ... if you get high marks it means you will be good at teaching"* (Student, Wesley College).

Other students disagreed and felt the marks had very little meaning pointing out that the assessments did not tell the whole story about their achievements and capabilities. The interesting question in my view is whether numerical scores can play any significant role in professional assessment and if so, what this might be. Murphy & Joyes (1996) argue that marks are not necessarily bad and that:

> "whether they are or not will depend first upon the quality of the assessment procedures from which they are derived, and secondly upon the understanding of their meaning possessed by those who use them."
> (Murphy & Joyes, 1996, p. 269)

From careful inspection of samples of tutors' assessment tasks there is considerable room for questions as to their quality. (Further evidence about this is discussed later in section 6.7). Also, tutors were not conducting their assessments under a clearly defined structure or plan. A tutor's comments in Presbyterian Training College sum up what was going on in the case study colleges:

"... We are not operating under any clearly defined structure so everybody does whatever he pleases, it's just up to the individual. When you talk to colleagues ... you think: How do I know the work I'm doing with my students, the lesson preparation notes, teaching and learning aids all go together as part of my assessment is actually anything like what anyone else is doing? ... its a joke, the whole thing". (Tutor, Presbyterian Training College)

Evidence from the content analysis of tutors' assessments showed that the actual content items varied widely in their scope and depth from tutor to tutor. Consequently, as Crooks et al., (1996) point out this "... will limit the generalizability, interpretability and usefulness of the aggregated score" (p. 273) within and across the colleges. In fact, it was quite difficult to attach any clear or tangible meaning to CA marks in relation to specific learning outcomes. This, one has to add, is a reflection of the poor development of the CA scheme for teacher training in Ghana, since it failed to specify even broadly the learning outcomes that were to be the targets of tutors' CA. The marks from CA would have clearer meaning if the assessments behind them were carefully planned to reflect clearly defined professional learning outcomes. The case study evidence showed that the CA was not operating in this way in the colleges.

One other limitation of the current CA scheme is that it has been structured to contribute marks for use with the students' examination marks to arrive at a final pass or fail grade. It could be argued that this imposes limitations on how it can be used. As it was discussed earlier, CA in the colleges operates wholly at odds with an approach which allows reporting of non-quantifiable professional attributes that could contribute to the qualification decision.

Another observation made was that the focus on assessing for marks had resulted in many tutors leaving assessment work until the deadline for submitting marks was

approaching. The following comments tell the story:

> *"During the early parts of the second term which is when the deadline for the submission of CA marks to the Institute is approaching, you will see tutors very busy in each classroom giving tests and quizzes, they leave it to the last minute since at the end of the day, they know it's the marks that the Institute of Education is interested in ... really I don't think we are doing continuous assessment in the true sense of the term"* (Vice-Principal, Wesley College).

> *"The pressure from CA is sometimes too much, most of our tutors leave their assessment to when the term is about to end and so each subject tutor is giving you some assessment at this time and it becomes very difficult for us because we have to learn for all these assessments"* (Student, Presbyterian Training College).

This practice supports the assertion that the current CA scheme is making very little contribution as far as supporting and promoting the *process* of teaching and learning.

In summary, the "assessment for marks syndrome" so prevalent in the case study colleges had so skewed the assessment process that it had led to a narrow perception of what assessment in teacher education should be about. The discussion pointed out that this imposes serious validity limitations on the results of CA and it was suggested that a broadening of the framework for reporting CA was needed to enhance its validity. It is reasonable to conclude from the evidence gathered that the practice of assessing for marks is the result of a poorly developed scheme of assessment for teacher training in Ghana.

In the next section I examine the views about the underlying philosophy of the CA scheme for teacher training in Ghana. In the analysis I examine how effectively the philosophy of CA was translated into practical procedures as contained in the guidelines.

6.5 Framework for Continuous Assessment in Teacher Training

The tutor interview results showed very little concern or interest about whether the current framework for CA was adequately serving the needs of teacher training. Generally, the interview results showed that concern about CA have been more about its operational difficulties than about its professional relevance in the teacher training process. There were, nevertheless, a few misgivings expressed by certain officials about its appropriateness and effectiveness for meeting the objectives of teacher training.

The view of one JuSSTEP subject advisor was that the present system of assessment followed a prescriptive methodology of training. She questioned the suitability of this and argued that this did not provide the platform for students to take greater responsibility in learning through assessment. In other words, she felt the teacher training system in Ghana had not created an environment for students to become more involved in the learning and assessment process and argued that:

> *"I would want to see assessment reflect a reflective methodology especially in Ghana when you don't know how many people are going to be there to supervise these student teachers once they graduate. You don't know whether there is going to be a transport budget for supervision, whether there is going to be a workshop or not, and so you would want to give them* (students) *the tools of independent analysis where they could go ahead and get better. The assessment system ought to reflect this developmental framework"* (JuSSTEP subject advisor)

She pointed out that currently the assessment scheme focused entirely on outcomes and that it did not sufficiently emphasise the *processes* that lead to the outcomes of assessment. According to her, the CA scheme should have focused on developing qualities of self reflection and evaluation instead of just focusing on summing up student

achievement. A similar opinion was expressed by one official of the Teacher Education Division in the Ministry of Education:

"We have become used to the idea that the teacher needs knowledge and not the use of knowledge. .... Give him knowledge and he can teach and this is what our assessment is focusing on ... our assessment should be more related to practice and I think should be asking more about what students are learning from the experiences of training. I feel this examination culture in the training college must change, teacher education is a vocational process and assessment should reflect this process of learning and development ... instead we are focusing all the time on testing knowledge which I think is not helpful for the long term development of teachers" (Official, Teacher Education Division).

Another JuSSTEP official felt that although the assessment system was unsatisfactory, nevertheless it fulfilled a need in the training colleges. He pointed out that in the colleges the CA had become an instrument of social control over students and accountability of tutors. In his view, this explained why CA has become almost the same as the examination system in its conduct and application. He described it as follows:

"The exam is really the main thing for CA and the reason it is the main thing is that everyone finds it easier to conduct tests than to do genuine CA. It is liked for the reason of controlling the tutor and the students ... it is actually easier on the tutors as well, it provides objective evidence of what the students have done ... it is convenient for the lazy tutor, but also for other tutors who have got so much work to do with so many students so instead of assessing often they just give a couple of short exams ... it reinforces the idea that the exam is the most important thing" (Official, JuSSTEP)

He pointed out that although the current CA system was inadequate for meeting most of the needs of teacher training, it still served an important purpose in the colleges.

"... what we've got isn't satisfactory as a good assessment system for teacher education, but what we've got is something which works in terms of addressing accountability and control needs at the colleges... You do get your marks for CA, sadly they are not one you can rely very much on, or means very much." (Official, JuSSTEP)

An interesting question arising from the case study was whether any meaningful interpretation could be made of tutors' CA, in terms of providing insight into students professional development. The case study produced evidence of the nature and content of tutors' assessments, which revealed several limitations regarding providing insight into the nature of progress students were making professionally. Tutors' CA was not guided by specific professional learning domains or competence specification as found in some teacher education establishments in Britain. Also, the Guidelines were silent about the domains of professional learning that were to be sampled by CA tasks.

The Guidelines did however make it clear that:

"The learning tasks and activities on which students are evaluated ... must include, for instance, planning and information gathering skills and *analytical*, *creative* and *evaluative* behaviour and ... leave a profile of a student's *abilities*, *efforts* and *achievements*". (Guidelines for CA, Ghana Education Service, 1992)

Closer inspection of the Guideline document reveals that no concrete assessment procedures were recommended for acknowledging and crediting the student for displaying qualities of the kind listed above. Not surprisingly therefore, there was no evidence of tutors' considering such qualities and values in their assessment work.

As was discussed earlier in the thesis (see Chapter 4) an important aspect of the professional learning process in teacher training is its formative and developmental element. This focuses on students progress towards the qualities which will enable them

to become good teachers. There was a recommendation in the Guideline document that this should form the basis for the framework for CA practice (Guidelines for CA, GES, 1992 p. 2). Unfortunately there were no suggestions about how this developmental framework of CA should be realised. In fact, it was not clear what this really entailed or meant in practical terms.

In summary, there was ample evidence from the interview results and observation to lead to the conclusion that the framework for assessment practice in the colleges is "measurement" driven. The effort of assessment was towards providing marks for external use as has already been shown in the previous section. From tutor interview results there was clearly a lack of focus on the formative and developmental aspects of teacher training assessment. When I pointed out to tutors, the need for this dimension of assessment, many of them cited the large student numbers as the major obstacle to applying any form of student-centred approach to assessment. Unfortunately, this meant using very simple task formats (eg short tests and quizzes) that would have encouraged students to adopt "surface" approaches to learning (O'Neil, 1995).

It is reasonable to conclude from the case study evidence that the framework for CA adopted by the planners of the CA scheme was inadequate because it lacked emphasis on the professional and formative purposes of evaluating student achievement. As the review in Chapter 4 showed the ethos of teacher training and development implies that its assessment processes place sufficient emphasis on a developmental framework. One in which the processes of professional learning are acknowledged, documented and reported as part of the assessment process.

6.6   Factors Influencing Continuous Assessment Practices

Generally, three factors could be identified as the major contributing influences on CA practice in the colleges. They can be classified as, (i) attitudes towards assessing arising from local concerns, (ii) the external examination and, (iii) tutors' instructional practices which support a traditional approach to assessment. Issues relating to the evidence about these three main factors form the subject of the analysis and discussion in this section.

It will be shown in the next section that the main style of assessment in the colleges was tests, quizzes and internal examinations. With the introduction of CA the expectation was that more tutor assessment would be in the context of group/individual assignments reflecting professional learning experiences or activities (General Guidelines for Administering CA GES/TED 1992). The case study evidence suggested that the lack of emphasis on such assessments was because of one of two reasons. First, there was the concern among tutors that students' were presenting someone's work as their own when given assignments therefore casting doubt on the validity of the results. Second, that students received direct help from friends and therefore the result of the assignment did not tell much about the actual performance ability of the student. Classroom tests, quizzes and internal examinations on the other hand, were considered to provide the evidence of actual performance. This was because the locus of control over these assessment formats rested with the tutor and therefore were considered to provide more reliable and valid evidence of performance ability. The following comments illustrate this perception:

"... where you give assignments and it takes about a week to complete, students' copy but if you organize a class test or quiz, say for about 15 minutes, then you can assess better whether the student really

228

understands what you have been teaching" (Tutor, Presbyterian Training College)

"I think if only we could monitor the assignments well, then it will help the weaker students as they can consult the more able student if we do not monitor well. (Researcher: Could you explain what you mean by this?). *I mean make sure the student is responsible for the work submitted because when you give assignments they write the same type of answers"* (Tutor, Presbyterian Training College)

"The assignments are not reliable because you really don't know whether the work the student has produced is by his own effort, ... but you don't have this problem when you give class tests because they can't consult so you know exactly what each student can do" (Tutor, Akrokerri Training College)

"I leave out the group work assignments because it is difficult to know from it the real contribution of each student and so it is difficult to give marks that are genuine to show what the student is actually worth" (Tutor, Wesley College)

Thus, a major concern of some case study tutors was whether assessments provided evidence of individual performance. The tutors' philosophy here seems to be that assessments in which students have no access to external help show evidence of "true" ability and yield valid results. Consequently, open-ended assignments where the locus of control rested with the student were considered to be open to 'cheating' or collusion and therefore were not very popular. Nevertheless, tutors who were expressing such a view also expressed awareness of the importance of such assignments in the assessment process. Thus, it seems that their unpopularity was not because they lacked knowledge about its value in the assessment process; rather, it was because their overriding concern was to achieve fairness in the assessment process. The importance of the assignment as part of the methods of assessing students was acknowledged by many case study tutors.

The following quotations illustrate some positive views held by many tutors about assignments:

> "*The benefit of assignments is that it reinforces the classroom work and also when students do them, they give us good feedback about whether they are understanding what we are teaching*" (Tutor, Wesley College)

> "*The assignments make students research, because they have to go to the library and 'dig' the information themselves*" (Tutor, Akrokerri Training College)

> "*... one of the things I have found it does is students have to make the effort to learn, ... also it is good for their learning because they share ideas with other students*" (Tutor, Presbyterian Training College)

Their unpopularity in practice though seems to be the result of the summative purposes of assessment swamping the formative purposes. (See Chapter 4). The high-stakes context in which CA policy was to be conducted had focused much attention on "assessing for marks" and was therefore a constraining influence on CA. What we have, therefore, are tutors choosing an assessment strategy based on the extrinsic worth in relation to providing what they considered valid data about student performance. Therefore, although the intrinsic merit of assignments for promoting learning was acknowledged and desired, it appears that because it was also open to cheating it had become unpopular with some tutors. Of course, this was not the sole explanatory factor for tutors using less of the assignments in CA. The problem of large student numbers meant that tutors preferred to use assessment strategies that did not give them too much work for marking. This tutor's comment summarises the feeling of many case study tutors about the workload of marking due to the large student numbers and the preference

therefore for short classroom tests and quizzes.

> "... *With sometimes over a hundred assignment books to mark, you cannot be giving assignments often, it's better with a short test or quiz that is easier to mark ... so normally we give two assignments and then a final annual exam*" (Tutor, Wesley College).

Very often the task item for assignments were the same as those used for tests and college-based examinations. Thus, though some tutors' were labelling them assignments the only difference between assignments and the tests and examination was that students were allowed more time to complete them. Therefore, "authentic" assignments (reports, term papers, projects, case studies etc.) were rarer in many tutors' assessments and in Akrokerri absent. (See Section 6.7.2)

To encourage tutors in the training colleges to use assessments which offer greater opportunity for students to improve their learning would require a significant shift in the current philosophy of assessment, which essentially, is measurement oriented. Despite the rhetoric of the policy document on CA to provide opportunities for students to improve their learning by introducing more learning oriented assessments, the reality of the situation is such that traditional examination oriented assessments are being fostered. This situation appears to have arisen because there has not been a paradigmatic shift in the philosophy of assessment in the teacher training system in Ghana. The emphasis on the uses to which the assessment results are put remains largely the same, which is to sum up for certification, and the way assessment results are recorded and reported also remain the same. This explains the dilemma that faced tutors in the colleges who were expected to incorporate learning-oriented assessment methods into their work and yet had to operate

231

within the structures of a measurement-driven assessment policy. Case study evidence suggests that tutors need to be made more aware and trained in the use of learning-related assessment strategies. Even more important the necessary assessment structures need to be put in place to ensure that assessment for professional learning receives as much attention as, the assessment of outcomes of learning.

The second main constraining factor on tutor assessments was the external examination system. Many tutors viewed the external examination requirements as the reference for what should go into CA practice. In effect, the CA had become a scheme for preparing students about to take the external examinations. The whole culture of assessment in the colleges appeared to pressurise tutors to gear CA for examinations, as these quotations suggest:

> "*My purpose in assessing is to help them (*students*) know exactly what to learn for the exams. I want to make sure they are well prepared for the exams, ... I do not want students to blame me if they do not pass, ... at least they will know I have done my part*" (Tutor, Wesley College)

> "*Examination is all what CA is about, you cannot ignore that because at the end of the day they have to pass them ... the CA helps them to know how prepared they are for the exams.*" (Tutor, Akrokerri Training College)

> "*It seems we always gear our CA towards the exams, we do not assess them on the skills or practical aspect of the course ... The order of the day is writing tests*" (Tutor, Presbyterian Training College)

Tutors were aware of this constraint from the external exams but seem powerless to change their practices because of external pressures (from principals, students and sometimes colleagues) and limiting conditions (eg. time constraints). The following

comments summarise the feeling among many tutors:

> *"I feel we rely too much on tests and quizzes in our CA. We need to emphasise the other techniques such as observation, interviewing students and practical assignments, but the problem is that there is no time to do them, you have to cover the syllabus and get the students ready for the exams ... the system does not allow it"* (Tutor, Presbyterian Training College)

> *"I feel our assessment is one-sided because we focus on the traditional methods for the sake of marks, ... but you see the problem is that our system is exam oriented, your head of department, the administration are all demanding one thing from you, (marks)"* (Tutor, Wesley College)

The extent of examination influence in the colleges is obvious when one considers the time it occupies in the academic year. From table 6.1, one can see that examination activities take up about a third of the colleges academic year period, working out as 11 weeks of the official 33 weeks. Thus, it is possible to argue that this makes it a significant part of the teacher training period. In effect such a large amount of time spent on examinations in the colleges provides conditions which foster the examination culture. Case study evidence in the three colleges indicated that the pre-eminent nature of the culture of examinations provided the objective basis for a backwash effect on many tutors CA practice.

Classroom observation of lessons provided more vivid evidence of the influence of the culture of examinations. Many lessons observed often set up the expectation of examination requirements and seem to be the 'hidden' objective of instruction: A common occurrence in classroom lessons were questions from students and remarks from tutors about expectations of examinations in relation to what was being taught. A few examples

of such remarks from my observation notes provide vivid examples of this interest:

> Tutor: "In any examination question on 'construction' ... you must remember to show clearly your method since the examiners check them ... this is where you can lose a lot of marks" (Observation Notes, Akrokerri Training College)

> Tutor: "If you are asked in the examinations about how you will explain the nine-times table, remember that there are four stages and each will give you one mark, but you must also remember that you need to draw a diagram to illustrate. This will get you one more mark" (Observation Notes, Presbyterian Training College) (This remark was made after the tutor had completed a section of a lesson on the principles of teaching multiplication)

In fact, reference to the requirements of the external examinations was rampant in lessons. On many occasions students' questions related in one form or the other to the examinations as these two quotations illustrate.

> *"Sir, if you are asked in the exam to say something about complex salts, will I be marked right if I just write the chemical expression?"* (Student, Wesley College)

> *"Sir, in the exams can you use any of the methods ... which of them is the one the examiners will expect?"* (Student, Akrokerri Training College)

It was reasonable to conclude from the case study evidence that much of what the tutors do for both teaching and assessment is influenced by the national teacher training examinations. Research evidence in the literature suggests that high-stakes assessment

234

environment can influence teachers instructional and assessment practices to a significant degree (Morris, 1985; Kelly et al., 1986; Kellaghan & Greaney, 1992). For example, Kelly et al., (1986) revealed from their Zambian study that:

> "even against their better professional judgements, teachers feel compelled to direct their efforts to obtaining good examination results, out of concern for their pupils, and to safeguard their own reputations" (Kelly et al., 1996 p. 551).

Another example of the extent to which examinations influence teachers' practice in schools was provided by Morris (1985). Morris investigated the barriers to the implementation of teaching and learning innovation in Hong Kong schools and came out with some interesting results. He located his study in the context of educational literature concerned with "barriers to change", viewing teachers not as resistors of change but as rational decision makers concerned with factors which can limit successful implementation. He conducted semi-structured interviews with 45 secondary school economics teachers, each from a different school. He also observed these teachers in action in classrooms and later asked about the factors that had influenced their approach in teaching. Apart from the need to cover the syllabus and the students' expectations, most of the teachers cited the public examination system as the main influence on their teaching. Morris argued that in fact the teachers were making a rational choice among alternatives by using approaches that would maximise their students' potential in passing the examinations. He further argued that teachers would change to new practices if they perceived them as necessary for their students to pass the examinations. He concluded therefore that the examination should be used to promote curriculum reform.

Classroom observation of lessons in this research clearly indicated that the external examination was a major influence on teaching, learning and assessment practice. This raises the dilemma of combining CA with national examinations without the latter swamping the purpose of the former. (Similar issues relating to this have been thoroughly discussed in Chapter 4). There appears to be still some ambivalence about the kind of relationship that should exist between CA and external examinations (Heyneman, 1987; Nitko, 1996). Nitko (1996) for example, proposes four different models that could be considered. They are as follows:

(i)   "Use CA only at the school-level but do not count them towards certification.

(ii)   Count CA towards certification or selection using a compensatory model (e.g. regression weighting).

(iii)   Count CA towards certification or selection but fix the percentage weight (e.g. 40% or 60% of the total for CA): (a) count only the last few years; (b) count all years; (c) count all years but weigh earlier years less than later years.

(iv)   Use only CA marks for certification; use examination for selection."

(Nitko, 1996; p. 334)

The first model could have the effect of reducing the value of CA in the eyes of students and teachers especially if the examinations are the main means of certification. The evidence from this thesis would suggest that this could possibly happen. Generally, for each model, since examinations would feature, they still have the potential to create negative backwash effect on teaching, learning and assessment in the school. There is

236

some suggestive evidence from Papua New Guinea that examination orientation or backwash effect is least where CA measures a different range of outcomes to external examinations (Lewin, 1993). The implication from this would be that the CA should be made to assess outcomes that are completely different from the ones assessed externally by examinations. Whether this would produce the desired results has still to be investigated, currently there appears to be lack of conclusive evidence to suggest that this would solve problems of combining CA with external examinations.

Judging from the evidence from this case study it appears that the key determining factor on backwash effect is teachers and students perception of the value of examinations. Therefore the important issue could be the value the education system places on examinations in making overall decisions about qualification or certification. This leaves Nitko's fourth model as the most attractive for the teacher training context in Ghana since CA takes on a high-stakes value. However, as the evidence in this thesis has shown there are other disadvantages that comes with a high-stakes model of CA, particularly its effect on formative assessment.

Other education experts see improving the examination system as the best approach to the problem of negative backwash effect (eg. Heyneman, 1987; Eisemon, 1990). Heyneman (1987) points out that educational systems have three choices with regard to the backwash effect of examinations: "fight it, ignore it or use it" (p. 260). Heyneman favours "using it" and argues that developing countries should design examinations with well balanced pedagogical principles in mind to maximise the influence of examinations on classroom teaching and assessment. This is a view also shared by Eisemon (1990). Both Heyneman and Eisemon argue on the premise that teachers

generally teach to an examination and that could be taken advantage of, but this recommendation would have certain limitations, especially in a vocational education context such as teacher training. For example, certain aspects of the students' professional learning will still require tasks associated with activities in practical contexts to enhance the validity of interpretation and consequence of assessment results. This is in relation to the promotion of construct-related validity (see Messick, 1989). Reforming examinations to promote positive pedagogical and assessment ends would therefore still be limited in backwash effect terms. This is simply because there will still be professional learning domains that are not suited to pencil and paper examinations.

Case study evidence from this research suggests that the obstacle to realising the full potential of CA practice have as much to do with ecological and professional limitations as the backwash of the examination system. For example, teacher skills and training, conditions and infrastructure in the colleges, support structures for carrying out change and student-tutor ratios are critical influences on instruction and assessment. (These issues have already been analysed in earlier parts of this chapter). The significant implication for the teacher training system in Ghana is that it needs to focus as much attention on minimising the effect of these limitations as on assessment reform.

The third main influencing factor on CA was tutors' instructional practice. The case study evidence showed that the heuristic instructional approaches introduced as part of teacher training reform (see Chapter 1) to encourage tutors to adopt a similar philosophy in CA had not stabilised. It has to be remembered that the JuSSTEP reforms in Mathematics and Science put considerable effort into reducing didactic teaching and promoting heuristic, discovery and process-oriented methods based on practical work.

238

The way in which CA was expected to function was to a very large extent dependent on the success of the instructional innovation. The JUSSTEP reformers pointed out that:

"The effective implementation of Continuous Assessment and ability to handle the syllabus is dependent on the application of the new, interactive methodologies." (ODA/British Council/ GES 1993).

Generally classroom lesson observation revealed that very few tutors were using or trying to use the interactive and practical approaches to teaching and learning. The observations also revealed that the pedagogical knowledge base of teaching in both Science and Mathematics was presented to students in static lecture form with students often making copious notes. Student interview results confirmed this with students indicating that the "new" instructional methodologies introduced by JuSSTEP were still not a prominent feature of most tutors' instructional methodology.

> *"We are not being taught using the activity method in practice, we are taught how to use it when teaching pupils at the JSS level, but in theory form. Our tutors would sometimes say, 'when teaching this topic you can use this activity, ...' but this is not actually demonstrated. We are just learning it as "chew-pour-pass and forget"* (a popular local student phrase meaning the passive learning and reproduction of information with little or no commitment) (Student, Akrokerri Training College).

> *"Teaching is mostly theoretical even the professional aspect of the course is theoretical. Our teachers give us notes, so we just learn the facts and produce it in the test"* (Student, Wesley College).

> *"Some of our teachers try to involve us in a practical way when they are teaching us, but this is not very common ... most of the time they give us*

notes" (Student, Presbyterian Training College)

With instructional practices predominantly theoretical and focused on giving notes, the type of accessible assessment tended to be the traditional classroom paper and pencil test. The model or styles of teaching that teachers employed in their instructional practice often reflected on their assessment practices. The evidence from the case study colleges showed that tutors who were trying to move towards more interactive and practical approaches to teaching were the ones more likely to be introducing open-ended assessments. For example, at Akrokerri Training College where tutors' instructional practices were noted to be heavily didactic and theoretical there was no evidence of open-ended assessments in use. The story was slightly different at the other two case study colleges where some tutors' lessons were more interactive and practically oriented. There were cases here where some tutors assessment strategies were open-ended or associated with practical tasks. (See, Tables 6.2 and 6.3).

Some educational researchers point out that there is an important relationship between instructional practice and assessment strategy (Linn et al., 1991; Klenowski, 1997). For complex, time-consuming and open-ended assessments, Linn and his colleagues argue that a change in traditional instructional practice is required to reflect the ethos of these assessments and to adequately prepare students for them. In a case study about portfolio assessment in teacher education, Klenowski (1997) pointed out that teachers needed to change their teaching practice accordingly in the implementation of portfolio assessment. Thus, for example, "... the implementation of student self-evaluation required corresponding changes to pedagogy and the curriculum" (p. 10). Similarly

Torrance (1995) has argued that a much more interactive and constructivist approach to teaching is required for "authentic" assessments, but as Linn et al., point out: "providing training and support for teachers to move in these directions (of "new" assessment) is essential" (p. 18). This leads to another important issue which relates to the lack of use of practically oriented assignments by many case study tutors.

The problem of the lack of use of "new" instructional strategies could be explained by the fact that many of the tutors who received in-service training during the JuSSTEP reforms had left the colleges or moved on to further education. For example, at Akrokerri Training College, all the case study tutors were not in service during the JuSSTEP reforms. Only five of the case study tutors at Wesley college were present when the reforms began and at Presbyterian Training College the number was two. The JuSSTEP Impact Study made a similar observation and remarked that "the impact of INSET is limited by the high turnover of tutors within many colleges, for example, over 40% in Science according to attendance figures at Science INSET workshops" (ODA/British Council/GES, 1993 p. 19). The significant implication of this is that with such a high staff turnover rate instructional innovations introduced by JuSSTEP were never going to be sustained. Consequently this had led to the limited use of "new" assessment strategies that needed to interrelate with the heuristic approach to teaching. Simply, new tutors replacing the old were not familiar or knowledgeable enough about the new pedagogical methods. In the following quotation a tutor succinctly summarises the crux of the problem as he had observed in the college:

"The new teacher coming to teach here in the training college has had no exposure to some ideas about developing assessment from a practical

241

point of view, ... he just focuses on what he knows, the traditional methods of assessment ... you can't expect anything different or better" (Tutor, Wesley College)

Another tutor pointed out:

"What I know is that you teach the students and they have to learn ... I am not good at this student-centred thing although I know it is good" (Tutor, Akrokerri Training College)

These comments give rise to the question whether during their own pre-service training tutors are exposed to a wide range of assessment techniques including open-ended or performance-based assessment strategies. Evidence from my own teaching experience at the University of Cape Coast where most of these tutors receive their training indicate that the scope of assessment experience and training is rather narrow. The experience is mainly of writing tests, quizzes or taking examinations. Therefore it is fair to conclude that tutors who have had no practical experiences of more complex, open-ended assessment approaches will find shifting to use them a big undertaking.

In summary, what the case study evidence on the influences on assessment practices show is that the successful implementation of "new" assessment methods under CA is dependent on several factors. Tutors' attitude to innovation or change is not simply a matter of the intrinsic merits but also takes account of the extrinsic worth in terms of prevailing conditions, pressure of examination expectations and teaching culture. Another important element is the values and concern tutors attach to "new" assessment approaches and the training and exposure they have had to them. The case study evidence suggests that primarily the combination of these factors transmit influence on tutors' assessment

approaches in the colleges. The implication is that assessment reform in Ghana's post-secondary teacher training system needs to be accompanied by effective review of these channels of influence.

In all, the three factors discussed in this section were the major influences on tutors' CA practices. However, there were other (minor) factors, already discussed in the early parts of this chapter, which had also contributed to the assessment strategies predominantly employed by case study tutors. Outstanding ones are the high tutor-student ratios, pressure to complete the syllabus and time constraints limiting heuristic teaching approaches. These have all conspired to influence CA practice. Clearly college-based conditions, more specifically the practicality of "new" practice, is an issue which policy-makers and programme designers need to seriously address in the reform process.

The next section examines more closely the evidence concerning case study tutors' assessments and their perceptions about them.

6.7 Overview of Tutors' Continuous Assessment Practices

6.7.1 Introduction

Generally, the evidence from research into teachers' assessment practices suggests that they are often characterised by low-level items in terms of the knowledge products or thinking skills required (Crooks, 1988; Haertel, 1991; Bol & Strage, 1996). Some empirical evidence suggests that the types of assessment that students anticipate are related both to the kinds of study activities they will engage in and also to student achievement (Crooks 1988). For example, student expectations about the assessment format have been known to influence student study activities and achievement (Crooks,

1988; Thomas et al., 1993). Bol and Strage also found from research into teachers' assessment practices in the United States that students may not engage in more advanced kinds of study skills because the course exams and other assignments simply do not demand it. They concluded that the lack of correspondence between achievement goals and assessment practices could explain why "students do not develop the study skills necessary to tackle more complex and higher order kinds of instructional tasks that requires problem solving and critical thinking" (p. 159).

In summary, research evidence suggests that the kind of assessment tasks teachers give to their students is crucial for developing the necessary learning skills that education or training envisages. An implication is that assessment formats and the kind of demands they make can have influence on students' learning and study attitudes.

An important element of this study was therefore to examine the characteristics of CA tasks for the level of processing they would require and from that infer the level of demand they might require from students. Also the study intended to examine the views of both students and tutors on the effect CA practices were having on students learning and studying.

Teacher assessment practices also raise important validity questions as has been discussed in detail in Chapter 3 of the thesis. For example, as Crooks et al., (1996) point out, the degree of validity and reliability of teachers assessment depends very much on: (a) the conditions of the assessment, (b) the scoring criteria and (c) the range and diversity of tasks included in the aggregated score. For teacher training in Ghana, such characteristics of assessment practices are important because as has been pointed out earlier, marks from CA are aggregated and counted towards certification. Thus, because

of the possible effect CA can have on certification, threats to the validity of CA practices are an important aspect of the evaluation of CA. In addition, the reliability of aggregated marks from CA depends very much on the individual and overall validity of tutors assessment practices. In other words, the characteristics of tutors' assessment practices will have important implications for their validity and consequently their reliability. Therefore, by examining the characteristics of case study tutor assessment tasks and the conditions under which they are administered some of the possible threats to the validity of the CA can be revealed. Crooks et al., (1996) point out that;

> "When the potentially important threats to validity have been identified, they can be evaluated ..." (using both) "... *conceptual analysis* and *professional judgement*" (p. 282, my emphasis).

A similar methodology was adopted for the analysis here. Summarised descriptions of tutors' assessments are presented in tabular form and in the light of other interview evidence evaluated for the possible limitations on overall validity of CA.

6.7.2 The Analysis of Case Study Tutor Assessment Tasks

Three main questions guided the analysis of the characteristics of the case study tutor CA tasks/items. These were:

(i)   What methods of assessment did tutors use for CA?

(ii)   What kinds of items appeared on tutors' assessment tasks?

(iii) Generally, what would be the level of processing that these tasks will require of students?

The analysis also consisted of categorising and identifying consistent themes that emerged across tutors' CA task items. These were summarised and reported in a table for each case study college in both Mathematics and Science (see, Tables 6.2 & 6.3). The categorisation followed a similar approach used by Bol & Strage (1996) in a study of Biology teachers' assessment practices in the United States. This involved classifying the level of processing a teacher's assessment task or test items would require. Basically, the level of processing ranged from a basic recall of knowledge information to the highest level which was the application of information or knowledge. For this study, I looked for whether the assessment tasks/items would require the recall of basic knowledge information or require more "vigorous interaction" (O'Neil, 1995) due to its open-ended or practical nature. It has to be pointed out that the description of the tasks was holistic since the intention was to provide a general overview and not a numerical analysis. Examples of specific assessment items illustrating some of the tutors' CA requirements appear in the two tables as evidence of the validity of the categorisation procedure. Also, it is necessary to point out that due to poor record keeping of CA in the colleges it was possible that not all CA tasks were provided by tutors for this analysis. Nevertheless, I am confident that what tutors could provide is a fair representation of the kind of CA tasks used in the case study colleges.

Mathematics (See Table 6.2)

The subject content area of Mathematics tutors' assessments predominantly focused on items that would have generally required low-level cognitive strategies such as, recall and extension of knowledge to solve standard mathematics problems. Some tutors in Wesley and Presbyterian Training College engaged students in open-ended

Summary of Content and Methods of Tutor Assessments in Mathematics

COLLEGE	Subject Content focus	Methods Used	Professional Focus	Methods Used
WESLEY	(a) Assessment of maths content knowledge. Most items require the recall and extensions of maths knowledge to solve standard mathematical problems. (b) Mathematical investigations: open-ended mathematical tasks (eg. Investigate the areas of all triangles with a perimeter of 24cm)	Homework assignments, classroom exercises and tests Homework assignment. - End-of-year exam	(a) Mainly assessing pedagogical knowledge. (Eg. A child in P4 does not understand why 6x4=4x6. (a) What is the child's problem? (b) Step by step show how you would help such a child overcome her problem? (b) Scheme of work for lower primary level with lesson notes	Class tests, exercises & homework assignments (b) Long essay assignment - End-of-year exam
CROKERRI	Emphasis on the assessment of maths content knowledge. Items mostly demand the recall and extension of content knowledge to solve standard mathematical problems	Tests, quiz, homework assignments. - End-of-year exam	(a) Items focus on knowledge related to teaching (eg. Describe a simple experiment to introduce JSS children to the concept of probability	End-of-year exam
PRESBYTERIAN	(a) Assessment of maths content knowledge. Recall and extension of maths knowledge to solve standard mathematical problems (b) Mathematical investigations: Open-ended investigational activity leading to mathematical generalisations.	Class tests/quizzes & homework assignments (b) Single & Group written reports - End-of-year exam	(a) Assessing pedagogical knowledge and issues related to teaching (eg. lesson plan detailing materials and stages of lesson development - given as a teaching practice task. (b) Items examine students' knowledge of how to introduce specific maths topics at the primary level (eg. How to present early number ideas, fractions, negative numbers etc.) (c) Research topic: While on teaching practice students are to identify a child who has a particular mathematical learning difficulty and, describe how they helped the pupil resolve this difficulty.	(a) Written assignments, exercises (b) Homework assignment (c) Written Project Work - End-of-year exam

mathematical investigations, whereas in Akrokerri there were no such tasks. A scrutiny of these open-ended tasks revealed they would require students to engage in some "deep" level problem-solving strategies. The tasks were mainly from the students' Mathematics textbook which adopts an activity-oriented approach to teaching and learning. The tutors in Akrokerri Training College did not appear to rely on the prescribed Mathematics textbook and this probably explains why they had not used any of the tasks recommended in them, whereas, in the other two colleges tutors were noted to use them. However, the use of open-ended assessment tasks was the exception rather than the norm in both Wesley and Presbyterian Training Colleges.

Apart from one Mathematics tutor in Wesley college who supplied evidence of his marking scheme for all CA work, none of the other tutors used explicit mark schemes in marking. Most of the case study tutors marking was purely holistic. The end-of-year examination was an important feature of CA for all the case study colleges and followed the same structure with similar items as the external examination.

Tasks relating to the teaching of Mathematics generally required students to explain standard teaching procedures or processes by which pupil misconceptions in Mathematics could be corrected. The method of assessment was tests and homework assignments and questions were short-structured, generally requiring the student to provide similarly short-structured answers. There was more diversity in assessment strategy at Wesley and Presbyterian Training Colleges than at Akrokerri.

Tutors at Wesley and Presbyterian Training Colleges included in their CA a long essay assignment which required students to produce a scheme of work based on a set of mathematical topics, with lesson notes describing how they would teach the topics.

However, tutors pointed out that students were not directly assessed on the actual use of lesson plans explaining that this assignment was given after teaching practice. As table 6.2 shows case study tutors in Akrokerri ignored the "scheme of work" as an assessment task.

Science (See Table 6.3)

In the Science subject content area, assessment items generally required students to display basic science knowledge. Short-structured and multiple-choice question items were the main method of assessment used to assess students in the knowledge area of Science. Some items required students to define or explain basic science terminologies. Few assessment items required the extension or application of science knowledge. Assessments addressing science teaching were generally seeking students' understanding of the pedagogy of science teaching. A few of the assessments were based upon practical science learning activities and required students to reflect on learning experiences in this context. There was only one evidence of a task requiring students to construct a teaching and learning aid and from which students were expected to produce a lesson plan explaining how it could be used. This assignment was given in Presbyterian Training College.

The end-of-year examination was a key feature of CA in Science and served as a 'mock' examination with the structure and content similar to the external examination.

In summary, in both Mathematics and Science there were few assessments that could be described as fostering practical problem-solving activity or encouraging opportunities for "deep" learning. However, the wider case study evidence suggests that the reason for this was not simply a matter of ignorance about them and their value.

able 6.3:	**Summary of Content and Methods of Tutor Assessments in Science**			
OLLEGE	Subject Content focus	Methods Used	Professional Focus	Methods Used
ESLEY	Subject content knowledge: Items mostly require recall, recognition and extension of basic science knowledge (eg. Which of the following measurements has no units; (a) mass, (b) weight, (c) density, (d) relative density; Explain the following terms ... (i) myopia, hypermetropia,etc.)	(a) Class tests and quizzes: short structured and multiple-choice format - End-of-year exam	(a) Assessing knowledge related to teaching science at the basic education level (b) Construction of teaching and learning aid and Lesson Plan on how to use it for teaching. .	(a) Tests & homework assignments · (b) Written long essay project - End-of-year exam
ROKERRI	Subject content knowledge: Most items require the recall of basic science knowledge (eg. knowledge of periodic elements and their properties, definition of terms etc.) Some items test basic understanding of scientific concepts.	- Mostly class tests and quizzes. Short structured questions - End-of-year exam	Generally, most items focus on teaching and learning issues. (Eg. - State the 3 traditional beliefs in your locality and discuss effects of these on science teaching. - Construct two-multiple choice questions on the human skeleton etc.) Some items examine pedagogical knowledge relating to the teaching of specific science topics	- Class quizzes, tests and homework assignments. - End-of-year exam
SBYTERI	Items test mainly science knowledge. Most demand recall of knowledge (eg. definition and explanation of scientific terms) Some focus on extension of science knowledge.	- Classroom tests and quizzes. Short structured and Multiple-choice items - End-of-year exam	(a) Science pedagogical knowledge issues (eg. how the student can introduce a scientific concept to say, Junior Secondary level 2. (b) Scheme of work and lesson plan with emphasis on the improvisation of science materials for teaching.	(a) Classroom . tests, quizzes and homework assignment. (b) Homework assignment/Stud ent project work - End-of-year exam

250

There appears to be other factors, notably tutors' methods of instruction and the examination system conspiring to constrain tutor assessment practices.

Interestingly, when asked about their objectives in assessment, most tutors stressed they wanted to encourage active learning in their students. These two comments sum up this general perception:

> *"My purpose ... is to give them the opportunity to reason for themselves. I am interested in developing the reasoning abilities of the students"* (Tutor, Akrokerri Training College)

> *"My aim is for the students to be able to do things for themselves, depend on themselves ... engage in research and not depend on the notes from the classroom teaching* (Tutor, Wesley College)

I pointed out to some tutors the seeming discrepancy between what they were declaring as their assessment and teaching goals and what their assessment items required. They did not seem aware of it or accept that such a gap existed. Bol and Strage (1996) point out that teachers often lack awareness of the gap between their instructional and assessment goals. They explain that this is because they are often "... largely unaware of the cognitive challenge associated with their test ... and the misalignment between their items and stated goals" (p. 160). The evidence from the sample of CA tasks and what the tutors stated as their goals for assessment illustrates the occurrence of this problem. Bol and Strage suggest that to remedy this discrepancy some kind of blueprint for classifying assessment item development should be adopted by teachers for their assessment work. A similar recommendation has been made by Linn et al., (1991) who point out that the logical value of this strategy is that it makes instructional planning clear. Earlier in this

chapter it was pointed out that most case study tutors did not operate their CA according to any clearly defined blueprint of assessment. It is therefore fair to suggest that this is possibly the reason for the lack of correspondence between their intended teaching/assessment goals and what their assessment tasks actually required of students.

The findings from the analysis of the characteristics of tutors' assessments raise certain doubts about the overall validity of the CA. From the analysis and tutor interview results three main threats to the overall validity of the interpretation of the CA results were identified as follows:

(a)   The lack of use of marking scheme or explicit assessment criteria by tutors. There was evidence of several inconsistencies in the marking of students work by the tutors who had marked holistically. Case study evidence illustrating the reason for some of this happening is discussed in detail in section 6.8.

(b)   Limited range of assessment methods were used to assess students. The predominant method of assessing students was by classroom short tests, quizzes and examinations as the two tables show. This was particularly the approach at Akrokerri Training College. There is research evidence to suggest that sometimes students perform differently according to the type of assessment experienced (King, 1976; Crooks et al., 1996). A theoretical explanation of how this might come about is that, for example, "... if all tasks have been presented as multiple-choice items, the results may not give a sound indication of performance on similar curriculum goals but assessed through different task formats" (Crooks et al., 1996

252

p. 275). Thus limiting the range of assessment formats to timed written assessment could disadvantage some students and therefore not present a valid picture of what students are capable of achieving. Besides, it would under-represent the assessment of certain important domains of teacher learning and development (construct validity), since such qualities as *organisation*, *presentation* and *critical evaluation* would escape the focus of assessment.

(c)   The lack of planning and coordination of CA. None of the departments in the case study colleges were coordinating their tutors in applying CA. As a result, there were some disparities in the interpretation and application of CA. For example, there seemed to be misunderstanding about the definition of an "assignment". Some tutors "take home" assignment items were similar to other tutors' classroom tests or quizzes in terms of task item. Since the time allowed for completion of an assessment is an important variable that could affect the validity of the assessment (Crooks et al., 1996), such inconsistencies would pose threats to the validity of the CA results. There were also wide disparities in the issues addressed in a single assessment format within a subject. While for example, some assignments focused on issues relating to teaching methodology, other assignments dealt with the subject content matter. It is possible to argue that lumping marks which represent entirely different task domains to produce an aggregated mark is somewhat meaningless or illogical (King, 1976). For example, Crooks et al., (1996) argue that "when too wide a range of tasks is included in an aggregate score, many correlations among the tasks will be low, reducing the

coherence of the aggregated score" (p. 273).

In my view, the reason the above issues raise serious questions on the reliability of validity of CA is precisely because of the use of CA results for certification decisions. Association of CA with a high-stakes policy driven assessment system make such weaknesses in the practice of CA particularly worrying. As Linn et al., (1991) rightly point out:

"Scores (based on a collection of assessments) ... are of little interest in and of themselves. They become potentially interesting only to the extent that they lead to valid generalisations about achievement more broadly defined." (Linn *et al.*, 1991, p. 18).

CA in teacher training makes an important contribution to the concept of teacher qualification in Ghana, thus the extent to which its practices contribute to a valid interpretation of the outcome of overall assessment is very important.

The Professional Board of the Institute of Education of the University of Cape Coast concerned about the lack of comparability and reliability of CA in the training colleges called;

"... for a reduction in the continuous assessment marks of 40% as one measure towards a more reliable assessment of students" (Minutes of the Professional Board of the Institute of Education, December 1996)

But quite clearly the case study evidence suggests that this would not improve the reliability of student assessments. Increased reliability will come by measures that improve the validity of the outcome of CA. As Linn (1994, p. 13) points out, "generalizability

(reliability) and other technical characteristics such as comparability derive their importance from the contribution they make to an overall evaluation of validity." In the context of the findings of this study, this means reducing the threats to the validity of CA that are associated with:

(a)   inconsistencies in marking because of tutors not using agreed marking schemes or explicit assessment criteria,

(b)   limited range of assessment methods particularly using mainly examination-style assessments and,

(c)   inconsistent conditions of assessment within and across colleges.

In practice, measures to reduce these limitations would amount to introducing more standardisation in the assessment process. However, as other scholars have pointed out, promoting more standardisation in the practice of teacher assessment for the sake of achieving high reliability does threaten other aspects of validity (Gipps, 1994a; Linn 1994; Crooks, et al., 1996). Nevertheless, as Daugherty (1994) points out teacher assessment operating within the context of a high-stakes assessment system make it imperative for equitable practices. More than anything else, this makes the arguments for appreciable standardisation of assessment procedures compelling. It is the contention of this thesis that because the results of the CA carry a high-stakes value with implication on qualification, it is necessary to introduce procedures that can assure equitable standards within and across colleges. One step forward would be the introduction of moderation already noted as missing in the CA scheme in Ghana.

Evidence from the inspection of samples of students CA work suggested that some tutors are not very consistent in the marking of their students work. For example, from some professional studies assignments about lesson planning, a tutor had made the following remarks on some students' work:

"Introduction: This is too long (5)". For another student, he had remarked: "Introduction: Too vague. It was difficult to link the question asked to the new topic (4)." (Observation notes of student's assessed work, Presbyterian Training College).

Though the remarks suggested that the tutor felt there was a marked difference in what these students had written in their introduction the marks awarded (in brackets), did not show much of a difference. There were several other examples of such marking noted in all three case study colleges, which suggested, that marking was not guided by explicit marking schemes or assessment criteria. In other situations tutors had awarded marks to written essays without clearly showing why or how the marks were derived. This holistic approach to marking was very common in all three case study colleges. Exactly how tutors determine marks in such assessments is not entirely clear and will require further investigation before definite conclusions could be reached. Nevertheless, the point this example illustrates is that CA marking was probably failing to provide clear discrimination of performance because scoring under it had become too holistic. Although global scoring can have its virtues it is important that this is guided by assessment criteria that fosters a high level of consistency in the marking process.

Holistic marking, as Elwood (1995) points out, may often fail to indicate how tasks differ in the demand they make of students and whether students have responded adequately to the demand. Also, Crooks et al., (1996) argue that "the use of holistic approaches to scoring is often wasteful of the information available, reducing the validity of the assessment" (p. 272). For example, scoring a substantial student project by awarding a single mark and without clear defensible criteria of marking cast doubt on the validity of the assessment for summative purposes. It also lowers the validity for formative purposes because of the lack of clear information to students about their short-comings and strengths. Since such holistic marking was the predominant method of marking CA, coupled with the differences in CA task demand within and across colleges, it could be argued that this reduces the reliability and validity of the results from CA.

Another interesting observation that I made was that many assessment items were past external examination questions. Thus, it is possible that students might have come across them and practised, therefore making it easy for many more students to do well in CA. Case study tutors admitted that past examination questions were often used to set up expectation for the kind of items that would appear in the external examination. (The influence of the external examination on tutors' assessment practice was discussed in the previous section).

In summary, the content analysis of tutors' assessment task/items leads to the conclusion that the CA in the case study colleges is possibly not providing valid and reliable information about student performance or achievement. Also, there is sufficient evidence to suggest that students are not experiencing the opportunity to use assessment to enhance their learning because of the limited range of CA methods. The case study

257

evidence showed that the focus of the CA is on measurement of learning and not the processes of learning. When one considers the fact that these students are being trained as teachers it is fair to suggest that the CA is doing very little to focus attention on the processes involved in developing skills/knowledge of teaching and learning. Clearly, CA requires further development in the teacher training context in Ghana, to ensure that the professional benefit to trainee students is maximised. Some issues that need to be addressed include: the development of an assessment system whose focus is on students' learning, professional development of tutors as assessors to enhance the quality of their CA, and the introduction of moderation to promote equitable standards and reliability of CA results.

An important question emerging from the above analysis is the views about the use of assessment criteria in the marking process of CA work especially for assignments or projects. This leads to the next section

6.8   Views about the Development and Use of Assessment Criteria

One of the issues which repeatedly surfaced in the discussion with tutors about CA was the whole idea of the role of assessment criteria in student assignments. Tutors were asked whether they provided students with some idea of the criteria (written or verbal) on which assignments were to be assessed. The views on this issue were of interest because it revealed something about the professional culture of tutors in relation to assessment.

Generally, tutors expressed reluctance to divulge any idea of the assessment criteria to students especially before students actually carried out a long assignment. The

following quotations represent some views of tutors about the use of assessment criteria:

"It is not useful for students to know about the assessment criteria for assignments, this will make things easier for them ... it is for them to learn and know what I want from the assignment ... I am supposed to teach and they have to learn and find out what I am looking for" (Tutor, Wesley College)

"... if you do that (provide students with assessment criteria), *the students will all score high marks, no, no, ... telling them the criteria upon which their work will be assessed is not right, you can give them an idea of what you want after the assignment and not before, ... if you do that what then is the point of the assessment? ..."* (Tutor, Presbyterian Training College).

" ... telling assessment criteria will make the students lazy and score high marks they have to 'fish' out and research, it will not help them if they know the criteria before then" (Tutor, Akrokerri Training College)

These views reveal a notion of assessment as something done to students and not something they share in. The comments suggest that tutors saw assessment as an individualistic and competitive experience. It also illustrates how tutors see their role in assessment as different and detached from the students role. The quotations also reveal the influence of high-stakes context of the assessment system on attitudes to assessment. As it has been repeatedly pointed out in this chapter, the assessment environment under which CA was operating in the colleges was highly summative in orientation. It would be fair to describe it as a far cry from what Wood (1986) describes as "... the constructive (or collaborative) outlook on assessment where the aim is to help rather than sentence the individual" (Wood, 1986; p. 194).

The findings about attitudes towards assessment criteria corroborate findings from a study commissioned by the Ministry of Education (1995) to examine issues about

assessment and curriculum in the training colleges. Among other things, the Ministry of Educations' study sought the views of tutors in four training colleges on issues related to the assignment component of CA. The results revealed that:

- Majority of tutors (95%) did not understand why students should know the criteria for assessment, and therefore sometimes reveal the criteria only after assessment;

- 68% of tutors do not take time to explain the purpose of the assignment;

- About 73% of tutors do not clearly identify what is to be learnt in the assignment.

(Ministry of Education, June 1995)

These results suggest that the way in which many of the tutors in the three case study colleges of this research perceived the notion of assessment criteria is not atypical. However, what was not explained by the Ministry of Educations' report was why the tutors in their study did not understand why students should know the criteria for assessment. The evidence from this case study suggests the reason to be possibly because the objective of most tutors' assessment was to measure achievement based on *individual effort*. The implication of this as the tutor quotations above suggests is that offering guidance, in the form of assessment criteria means undermining the credibility of the assessment. What we have, in this instance, is a tutor philosophy of assessment that can be described essentially as "non-Vygotskyian." The Vygotskyian model is one in which student and teacher "... collaborate to produce the best performance of which the student is capable, ... rather than withholding such help *(through for example, clarifying*

assessment criteria), to produce typical performance" (Gipps 1994a; p. 9, my emphasis).

(This notion of assessment has been discussed in detail in Chapter 4). An important

element of this view of assessment is that it is an attempt to "display to the learner models

of performance that can be emulated and also show the assistance, experiences and forms

of practise required by learners to move towards more competent performance" (Glaser,

1990; p. 477). It is essentially a formative model of assessment. The evidence from this

case study and that of the Ministry of Educations' (1995), leads to the conclusion that

tutors have not yet grasped the formative role *assessment criteria* can play in promoting

achievement.

On the question of what students felt most unhappy about in the CA many cited

the lack of clear guidance about the quality expected of assignments. Some case study

students felt the lack of adequate information about what tutors required from their

assignments had created unfairness in marking or made expected performance ambiguous.

The following comments illustrate this view:

> "... *When you do the assignment you feel you have done your best, but*
> *when you get your work you find that you have not done well, ... and it is*
> *not clear what they (*tutors*) expect from us, so how can you do your best?*"
> (Student, Akrokerri Training College)

> "*Sometimes you write an assignment thinking that you will score high*
> *marks but when the marks arrive you find that you haven't done that well*
> *... I don't know what sometimes they really expect us to write. Our tutors*
> *have to make it clear to us so we know how to go about the assignments*"
> (Student, Presbyterian Training College)

> "*Sometimes when we have produced some work which we are sure should*
> *give us good marks, we realise that what you get is below our expectation.*
> *I remember in one assignment about* (describes a professional studies

assignment) ... *I wrote five reasons, others wrote four or three. The teacher marked everything and then picked only two saying that those are the best answers among what I'd written, how was I expected to know that ... at least he should have directed us a bit."* (Student, Wesley College)

According to Butler (1994) if students misperceive the goal that a teacher intends when assigning a task, they may engage inappropriate tactics for completing the task or they may adopt an inappropriate reference for monitoring qualities of their work. Very clearly, the above student quotations show that students would have appreciated more guidance or clarity in the requirements of assignments in order to engage appropriate strategies for their assessment work. Unfortunately, this was not forthcoming as far as they were concerned. Throughout the interviews with students it became evident that many of them were not entirely sure of the kind of performance expected from open-ended assignments. However, the responses from tutors suggested that they had a fair idea of what they expected their students to achieve. What appeared to be missing was communication of whatever tutors had in mind to students. My own view is that the lack of proper conceptualisation and use of assessment criteria in the assessment process is a major contributory factor to this communication gap. Sadler (1989) has noted that this is one of the drawbacks on students' progress in learning and achievement. He points out that failure to provide students with explicit characteristic properties of an exemplary piece of work, works against the interest of the student. He believes that it makes the student depend on the teachers' judgement of quality which is subject to existential determination. It was clear from the quotations of these students that they felt there was some element of existential determination of assignment quality by some tutors. These students were obviously frustrated by the uncertainty surrounding some tutors' assessment

criteria for assignment work.

The next section analyses perceptions about the use of CA to monitor progress in learning.

6.9   Perceptions about the Use of CA in Monitoring the Progress of Learning

In the case study colleges, students were asked about the role CA played in monitoring their own progress in learning. A range of views was expressed on this issue. Some stressed that the occasional classroom test or quiz provided them with understanding into whether they were making progress on the course or not. Others thought many assessments were not very useful because some tutors seldom gave feedback about their performance or made very few remarks about what they had written, or the assessment results arrived too late, mostly at the end of the term. In the interviews I was particularly interested to know whether CA was useful for the students in helping them to keep track of their progress and provide the basis for further improvement, and if it did, what aspects about it were felt to be most helpful.

Many of the students cited the marks from CA as the means by which they gathered understanding into their own progress. Most of the students mentioned that it was the *pattern* of their CA scores which gave them an indication of whether they were making progress in their learning. For example, some students said that:

> "*You know from the marks, the* (tutors) *don't write much comments, when you get something like 15/20, and the next time you get something lower then you know your standard is falling and you have to work harder*" (Student, Wesley College).

263

> *"From the marks I get in CA, I can know whether I am making progress on the course ... also whether I am learning well"* (Student, Akrokerri Training College)

This perception was not restricted to students alone; some tutors also expressed similar views. Three quotations illustrate some of their views on the subject:

> *"After marking, the results from the performance in the class tests or assignments give you a good idea of whether students were improving or not. You look at the pattern, sometimes you see that a student began with low marks and started moving up, sometimes they go up or down. When you look at this you can tell whether a particular student was doing well or not"* (Tutor, Wesley College)

> *"... you look at the marks finally, after you have assembled all the CA marks then you can tell how they were doing"* (Tutor, Akrokerri Training College)

> *" ... the marks tell you whether the student is pulling his weight or not, it is from the marks that you gain understanding of how the student is performing* (Tutor, Presbyterian Training College)

Basically these tutors and students were saying that the CA mark was the means by which students' progress could be understood. Generally, tutors also agreed that through the teaching process they could discern the potential and capabilities of students and that this often reflected in performance in CA.

Judging from the haphazard and unsystematic manner in which tutors conducted the CA, it can be argued that very little meaning, in terms of the rate and state of progress, could actually be made of the CA marks. Nevertheless, there was quite clearly a belief by many tutors and students that assessment marks provided an understanding of students' progress on the course. Evidence from the wider case study story rather suggests that the

results of CA produced a motivational effect on student learning. It is likely that tutors and students confused this with the role assessment can play by providing understanding of progress, in relation to some specific performance criteria, standard or goal. The following student's comment sums up how fixated student perception was on CA marks providing understanding of progress on the teacher training course:

"Through the examination marks and also from the term reports you see your marks and then you know that you have to work hard to improve, or you will fail ... the marks have been giving us the idea of our performance" (Student, Akrokerri Training College)

As earlier analysis in this chapter showed, an increase in motivation in learning arose actually because of the linkage of CA with the external examinations. Thus, it was more likely that CA marks were providing extrinsic motivation for learning than as was being suggested providing understanding of student's progress. It is also doubtful whether any thing significant concerning strengths and weakness can be learned from purely scores of an assessment without additional information describing specific learning achievements relative to goals.

Butler and Winne (1995) following an extensive review of the literature on feedback defined the monitoring process in learning as: "the cognitive process that assesses states of progress relative to *goals* and generates feedback that can *guide further action*" (p. 259, my emphasis). This suggests that more elaborate feedback from assessment would have the potential to enrich the processes by which students monitor their learning or performance for improvement. By this definition, much more information in relation to goals will be required than scores if students are to develop the capacity to

265

monitor their learning or progress from assessment tasks.

Sadler (1989) argues against the view that by "looking at the sheer magnitude of result" (p. 125) of a series of assessments, it is possible to gain understanding of a student's progress. On the contrary, he points out that by providing clear descriptive criteria upon which students work is judged it is possible to produce reliable judgements of progress or performance. Unfortunately, as it was shown earlier in this chapter, the use of such assessment criteria was missing in the assessment milieu of the case study colleges. (In all three case study colleges there were very few or no comments attached to the work students had done for assessment and very little evidence of marking procedure).

Gipps (1994a) has noted that it is the fundamental judgements of the assessments which are important and not the scores in providing understanding of progress in learning. Murphy & Torrance (1988) stressed that grades or scores from assessment by themselves offer no means of understanding learning difficulties that would lead to improvement in performance. They argued that:

> "The idea that a student might diagnose particular learning difficulties from a single letter (or number) grades ... is in itself laughable. Furthermore, the widespread practice of not revealing marking procedures, or entering into any kind of post-assessment discussion of the work of individuals ... destroys most if not all educational benefits which could be derived from it" (Murphy & Torrance, 1988; p. 15)

Thus, among education experts there is a strong consensus that scores from assessment alone are of little or no benefit in providing clear understanding of ones performance. What scores or marks particularly fails to show is the nature of specific strengths and weaknesses exhibited in the performance unless there is some learning-related feedback

on the performance.

The interviews produced very little comment about using CA as a learning experience as the literature suggests happens with introducing CA (see Chapter 3). A reasonable explanation for this not happening is that fact that most students were more concerned about their grades than using CA as a learning experience. As one student put it:

> *"At the end of day, it is how much you get for the CA that is important, so we have to do everything to make sure we get good marks"* (Student, Wesley College)

A similar observation of student attitudes towards CA was reported by Chansarkar & Rautroy (1981). In an exploration of how relevant CA was in some Polytechnic Business Studies Courses they found that students concentrated their efforts to maximise their grades than use CA as a learning experience. They explained that this was because of its link with examinations, adding that because of this, it had "discouraged students from experimenting with the development of their own ideas and has encouraged conformity with text book opinion" (p. 54). This issue leads us to another topic which has received no attention in post-secondary teacher education in Ghana but which may become increasingly important in the future - profiling. The potential uses of profiling in teacher training assessment for professional learning has already been discussed in detail in Chapter 4 of the thesis, therefore, it requires no elaboration here. The important point about it is the opportunity it can provide assessment in teacher training to serve the formative purposes of evaluating student achievement (Murphy, et al., 1993).

A few students expressed the view that the assignment component of the CA

267

provided useful learning experiences. These students suggested that some of the assignments (specifically, open-ended investigations) they had done, involved much more than assessing pure knowledge. Rather they valued them for creating the opportunity to share knowledge and collaborate with other students to solve problems. In addition, it had encouraged an intrinsic desire to learn.

> "*The investigations have been very useful because you have to sit up and 'dive' into the problem and see all the possible avenues for coming out with something logical ... the good thing is when you are going wrong no one needs to tell you, you discover it yourself*" (Student, Wesley College)

> "*The assignments force you to go and research into the problem, you consult your friends, books and sometimes we even see our tutor for help, ... so it has given us the chance to understand things better and you can see where your understanding is lacking*" (Student, Wesley College)

One of the Mathematics tutors at Wesley College explained the potential benefits of these assignments in the CA:

> "*I think the mathematical investigations have been most helpful to my students ... one of the things such assessments stress is the difference between instrumental learning, which is dealing with factual knowledge and relational learning where the students have to make discoveries, although initially they find it difficult later on you find they are enjoying it*" (Tutor, Wesley College)

Unfortunately these assignments were few and particularly at Akrokerri Training College there was no evidence of their use by the case study tutors. The implication is that only students from the other two case study colleges could have benefitted from the contribution they make to learning Mathematics or Science for teaching.

Evidence produced by the JuSSTEP Impact Study (ODA/British Council/GES, 1993) from twelve colleges show that only 18% of tutors' assessments in Mathematics and 48% in Science consisted of open-ended assignments. (The salient factors causing this situation have already been analysed earlier in this chapter and need not be elaborated upon here). What is important here is what some students' felt about the way in which it provided rich learning experiences. Their feeling was that it had encouraged them to engage in researching problems and develop personal understanding through wide reading and consultation with other students and tutors. This experience suggests that students respond positively to assessment tasks that are set to engage them in more active collaboration of learning. What is more interesting is the suggestion that when assignments leave room for research or investigation students are encouraged to work in partnership with each other and with their tutors. However for many case study tutors, assignments are open to collusion and make it difficult to identify copying, which they believe is rife among students. Consequently this has contributed to the reluctance among some tutors not to use or make it a main feature of their CA. This could explain why generally the student interviews produced very few comments about the importance and contribution of assignments to the teacher training learning experience.

In summary, it was found that generally the negative effects of CA being linked to examination as suggested in Chapter 4 are confirmed to some extent by the case study evidence. One notable negative effect is the way in which it has contributed to the notion that CA *marks* provide the means for understanding and promoting progress. Such perception appears to have shifted attention away from the fundamental judgements of the assessment to the overall marks (Gipps, 1994a). However, there is also evidence that

when open-ended assignments are used some students have valued its contribution to their learning. Finally for the students who had experienced the open-ended assignments, their views suggest it has encouraged an intrinsic desire to learn and made some impact on their learning.

In the next section the issue of how tutors were using CA for promoting learning through the mechanism of feedback is reported and analysed.

6.10   Using the CA Scheme to Promote Learning-Related Feedback

The opportunity CA presents for feeding back the results of assessment directly and almost immediately into the teaching and learning process is one reason many educationists recommend it. "The feedback helps the student to assess his own ability and improve his performance" (Chansarkar & Rautroy, 1981; p. 49). (See Chapter 3). Studies do show that feedback is not only crucial for motivating students to learn but moreover can contribute positively to their progress in learning and raise their achievement levels (Crooks, 1988; Gipps, 1994a; Bangert-Drowns et al.,; Butler & Winne, 1995). It is also recognised in the literature that to improve learning and performance feedback has to specifically address students' learning difficulties. In a review of feedback and its effects on achievement, Bangert-Drowns et al., (1991) concluded that feedback is effective to the extent that it "empowers learners with strategically useful information" (p. 214) to address learning-related problems. What it implies is that not all feedback from assessment is useful in helping the learner to make specific improvements in learning as was noted in the previous section. (See also Chapter 4).

In the case study I was interested to know the range of feedback students received from their tutors after assessment, and also what they felt about them for promoting understanding about their learning.

The results of both case study tutor and student interviews showed that there were two main forms of feedback students received from their tutors after assessment. These forms were common in all three case study colleges. The first was feedback which came in the form of scores and has already been discussed in the previous section. The second could be called "verbal motivational feedback" or "effort feedback" (Schunk & Cox, 1986) and as the phrase suggests, it was mainly intended to encourage students to work harder. It came either as criticism or praise after a performance in assessment. Students' comments show that some tutors used expressions such as the following to explain to them how they had performed in an assessment task:

> "*The whole class did not perform well in the test or exams ... most of you have to buck up ... *".
> "*Students in PS3 did much better than you ... there is room for some improvement*"
> "(Student A) *did better than the rest of the class ... some of you have to work harder*".

Such comments show that tutors were trying to encourage students to "try harder" or "work harder", a practice which Sutton (1997) points out is quite common with teachers. These students also suggested that sometimes tutors went on to discuss with them specific areas where many of them had difficulty in achieving. For example, as one student at Wesley College explained:

> "*Sometimes after he has marked our work our teacher will ask one or two people who got the question correct to come to the board and explain how*

271

they worked it ... the rest of us can then follow and see where we went wrong" (Student, Wesley College)

The use of a few bright students to share with the remaining students solutions to questions appears to be a very common style of providing feedback to students. Some students also pointed out that they consulted their friends who had done better in the assessment and that this consultation provided useful feedback about their own performance.

However, generally students were unhappy with the feedback they received from their tutors concerning their performance in assessment. Many complained that some tutors failed to explain in sufficient detail areas where they had not done well, as is expressed in the frustration of these two students:

> *"Some of our teachers do not bother telling us where our problems are. I feel they should discuss the test and assignments they give us in class and tell us exactly how to approach the questions, other than that how can we do well?"* (Student, Wesley College)

> *"We don't normally sit as a class with our tutor where he discusses with us what we wrote in the assessment, whether it was good or not ..., some of our teachers they only come to the class and tell us we have disappointed them"* (Student, Akrokerri Training College).

Other students said they felt discouraged by the constant reminder by their tutors that they were under-achieving. The comments of a student in Akrokerri Training College summarise the frustration felt by some of the students there.

> *"When our teachers are always telling us we are not good, it affects our confidence, it makes me feel I can't improve. They (tutors) should rather*

tell us specifically what we should do so we can improve on our performance" (Student, Akrokerri Training College)

Another student, this time from Wesley College lamented:

" *... it dampens our spirits to be always told we are not good, they should rather use the CA to encourage us ... we want reasons for our mistakes"* (Student, Wesley College).

There is strong evidence in the literature that negative motivational feedback leads to students having low academic self-esteem and that such students make minimal effort in learning (Schunk, 1985; Schunk & Cox, 1986). Sutton (1997) also points out from her own experience of working with teachers on assessment that mere motivational feedback "... may wear down all but the most confident and resilient learners" (p. 3). "Clearly, the more successfully assessment can be used to pinpoint particular learning strengths and difficulties the more likely it is that advice about next steps will be explicit and productive" (Sutton, 1997; p. 3). Schunk (1985) stresses that emphasis in performance feedback should be on informing students about their specific progress, rather than on social comparison. The comments made by some case study students on the issue of the kind of feedback they received from their tutors suggested that the negative comments about their performance or ability were not having the effect of motivating them. Instead it was leading to lower perceptions of academic self-esteem.

Further evidence from observing some lessons showed that some tutors were in the habit of criticising those students who were unable to answer questions in class. Often they turned to the brighter ones for answers without making the effort to explain why previous answers or responses were incorrect. This practice appeared to have put off

273

many students from answering questions. For instance in Akrokerri Training College I witnessed a lesson in which a Science tutor repeatedly asked his students during stages of the lesson the question: "do you all understand?". Often students murmured that they did not understand but surprisingly these students seemed unwilling to express to their tutor what they misunderstood. Later in an interview I asked one of them why he did not ask his tutor for an explanation when he was not clear with what was going on. He explained that he preferred to ask a friend later to explain because as he put it, "*sometimes the teacher will put you down or criticise you ...* ". Case study students particularly at Akrokerri Training College expressed this kind of feeling. Many of them indicated that they did not feel their tutors created a supportive feedback atmosphere to encourage them in their learning.

The story was slightly different with one tutor at Presbyterian Training College. He obviously made considerable effort to include as many students as possible in class discussions, especially the less achieving ones. In sharp contrast to other lessons of the other tutors, I observed that students in his class readily volunteered answers in discussions. He persistently encouraged students who were finding it difficult to answer his class questions to try again by helping them to reflect on the implications of their answers. The atmosphere during his lessons were remarkably supportive and very different from any other tutors' lesson I had observed. In the interview following this tutor's lessons, he pointed out the need to create a classroom atmosphere in which all students felt confident to share in discussions. It also became clear that his philosophy of classroom instruction had a lot to do with the emphasis his overseas background training placed on promoting a classroom learning atmosphere that will give students confidence

in their ability. It illustrates the role training could play in changing the classroom teaching and learning environment so that it promotes feedback related to students learning and development.

From the lessons I observed, most students seem more comfortable consulting their more able friends than consulting with their tutors. One student explained the reason for this behaviour as follows:

"Sometimes when you go to the teacher with your problem he will be very critical of you and say that at your level you should be able to understand ... so it makes us shy for some of us to see them with our problems"
(Student, Akrokerri Training College)

At the risk of oversimplifying what is clearly a complex issue, it is reasonable to suggest that the more cooperative the teaching and learning environment the more likely students would be willing to consult with tutors about their learning difficulties. Even more important perhaps, classroom environments which optimise cooperation and seek greater involvement of students in lesson discussions are more likely to contribute to the development of positive feedback. Unfortunately, there appeared to be only one tutor whose action in the classroom was seen as seeking to foster this environment. Certainly tutors needed to be more concerned about the effect their feedback comments could have on students perception of self-efficacy, and its potential to promote their learning. They also needed to be cautious about creating a classroom learning environment where the less able students would not feel intimidated.

The case study interviews suggested that what students would appreciate was more individualised attention paid by tutors to learning difficulties. Clearly this would be

275

difficult to achieve given the workload and the large student numbers tutors were dealing with in the colleges. Many tutors suggested that the lack of feedback from formal assessment tasks was due to the problem of the marking workload.

"By the time I finish marking, we have moved onto some other topic because it takes so much time to complete the marking ... so the incentive for feedback is not there. The problem is that we have just too many students to handle" (Tutor, Presbyterian Training College).

"... Because of the workload in marking you don't study in detail what problems students have made. You just want to get on with the marking ... so you only look at the marks to give you an idea of what is happening. If you want immediate solutions to the students learning problems then you must have enough time after marking to examine the responses of the students in detail but you are dealing with a lot of students and that is difficult" (Tutor, Wesley College)

In effect, what these tutors were saying was simply that the sheer number of students they were dealing with makes it virtually impossible to provide more individualised feedback. Tutors also pointed out that it was difficult to provide the feedback at the time it would perhaps be most useful to the students learning because of the time it took to mark. Sutton (1997) has also reported similar difficulties in South Africa where teachers may see in one week about 100 to 500 students or more.

Crooks (1988) has pointed out, "... feedback should take place while it is still clearly of relevance. This usually implies that it should be given soon after a task is completed and that the student should be given opportunities subsequently to demonstrate learning from the feedback" (p. 469). The workload problem in the case study colleges obviously made giving and using feedback in this manner impractical. As one tutor summed up the argument:

276

"Formative assessment will only be possible if we do not have large student numbers, then you can pay attention to the individual problems of the students" (Tutor, Presbyterian Training College)

There is another complication to the issue of feedback. Other tutors felt the focus of the CA system (providing marks for external use) had shifted interest away from providing learning-related feedback. (Views concerning this have already been analysed earlier in this chapter). In effect, there was no incentive for engaging in formative assessment.

"What you are interested in is getting marks to fill the CA forms, diagnosing students learning problems is not on your mind ... it is secondary" (Tutor, Wesley College)

In summary the case study showed that students received feedback mostly as simple knowledge of results (ie, CA marks) or as verbal motivational comments from tutors. Some students suggested that "negative" feedback comments were affecting their confidence and called for feedback that would rather address their specific and personal learning difficulties. However, the case study evidence also showed that this would be quite difficult to achieve due to the problem of large student numbers. The formative function of the CA, which would entail feedback to and discussion with students for purposes of improving their performance appears to have eluded most case study tutors. Reasons given for the lack of learning-related feedback in the CA process were to do with excessive workload, large student numbers or the shifted focus of CA from the formative purposes of assessment.

Judging from the case study evidence, there is perhaps the need to introduce some

descriptive 'standards' or agreed learning objectives to focus feedback more clearly on learning-related issues. The problem here again is that most tutors may lack the expertise and may not possess the relevant conceptual tools to enable them to operate a "standards-referenced assessment" (Sadler, 1989) framework. (See, Chapter 4). It seems that this is an area where future reforming of the present assessment scheme in teacher training in Ghana would need to consider, especially if learning-related feedback is to receive the emphasis it requires. However, a more critical issue is whether such feedback from assessment can actually occur in the conditions under which many teachers work. As Sutton (1997) notes concerning South Africa, "the turn-around time for 'marking' and 'grading' in many of our schools is simply too long for the desired impact to be achieved, despite the huge amounts of time teachers spend on these procedures" (p. 3).

The evidence from the case study suggests the need to look beyond tutors as sole providers of feedback from assessment because of the problem of manageability. As was discussed in Chapter 4, one way would be to promote the use of assessment procedures that encourage the student to engage in critical self-evaluation and reflection. Obviously, this would imply the development of assessment procedures which are closely linked to the concept of developing skills in critical self-evaluation and reflection (Schon, 1983; Klenowski, 1996). Unfortunately, the CA system in teacher training in Ghana currently operates in a context and under conditions which are wholly at odds with this philosophy of assessment because the CA scheme is much more orientated towards measurement than learning.

In the next section the way in which tutors view the use of CA as part of the teaching process is analysed.

6.11   Using Continuous Assessment as part of the process of Teaching

Another focus of the research was to understand how tutors perceived the use of CA as part of the teaching and learning process. As stated in Chapter 3 the JUSSTEP reformers of post-secondary teacher training in Ghana expected that CA:

> ".... should be set as part of the *normal teaching process*. They should **NOT** be viewed as extra work" (GES, Teacher Education Division, 1992; p. 1, emphasis in the original)

The planners of the CA scheme evidently did not want CA to become an extra burden on tutors. Unfortunately the policy guideline document was silent about how it expects tutors to combine CA with teaching. Was it, for example, to be set at the end of each teaching topic or become part of the agenda and conduct of teaching?

Interviews and observations carried out in the colleges attempted to find out the various ways in which tutors were combining CA with teaching. In the interviews I asked about their views concerning combining CA with teaching. Generally there was widespread agreement with the principle that assessment and teaching should go together to monitor effectiveness of teaching and learning. As one tutor put it:

> ".... *in teaching there must be a way of assessing the teaching and learning process so you get to know whether the students are learning or not, and whether the material or your approach is suitable so you can adapt to improve your teaching*" (Tutor, Wesley College)

Some tutors felt that assessment and teaching was already a part of their professional responsibility and therefore did not see CA as contributing anything new to this responsibility. For them the only thing new about it was that they had to forward the

279

marks of student assessment to an external body to cumulate with external examination marks. Other tutors pointed out once again that present conditions of limited time and teaching workload have meant it was not possible to use assessment to contribute directly to the teaching process. The major concern of tutors was "how to complete the syllabus" with the least amount of interruption, in preparation for the examinations.

"If you have to follow this idea of combining assessment with teaching, ... and doing all the required CA you wouldn't have any time to teach and this means you wouldn't finish the syllabus" (Tutor, Presbyterian Training College)

"My main concern is to teach them (students) assessment can come later" (Tutor, Akrokerri Training College)

In summary the overall picture gathered from the case study evidence is that the CA served little use for teaching purposes. The evidence indicated that the problem with combining assessment with teaching was not simply due to practical constrains, but that there was a technical dimension to the problem. It seemed that the tutors' knowledge and skills in the way assessment should be used as part of the teaching process is very limited. Most tutors admitted that they lacked competence in using CA as a part of their teaching plan. At Presbyterian Training College for example, one tutor pointed out that many of them were aware that assessment should form an active part of their teaching plan. The problem, he pointed out, was how they were to do that in practical terms. The Principal at Akrokerri Training College agreed with this sentiment. As he explained:

"I think we assume a lot about the capabilities of the training college tutor, you see most of them do not have the skill of constructing

assessments in line with their teaching objectives .... they see teaching and assessment as entirely separate activities. When you talk about using assessment as part of the teaching process, the fact is I don't think many know how to do this in the sense we are talking about" (Principal, Akrokerri Training College)

These comments suggest that many tutors may be lacking in the knowledge and skills of using assessment as part of a teaching programme.

Two tutors wondered whether it was possible at all to combine teaching with assessment and suggested that the two were separate activities that fulfilled different purposes.

"Well, assessment has little to do with teaching, for example in assignments I give them a topic and they have about two weeks to complete it ... that is separate from my teaching ... the two are dealing with different things" (Tutor, Presbyterian Training College)

"It is the same period you have to use for teaching and some for assessment ... you cannot assess and teach at the same time. You teach and later assess them to sum up what the students have learnt" (Tutor Wesley College)

These comments clearly point to the fact that for these tutors assessment and teaching stand apart. As Darling-Hammond (1994) points out, such tutors will "have little opportunity to use the results to understand the complex nuances of student learning in ways that support more successful instruction and little information on which to act in trying to rethink their daily practices" (p. 20).

Case study evidence indicated that in general tutors drew on their previous experience of assessment and teaching to make sense of the CA scheme. What this meant in practice was that for many assessment followed directly after teaching and its purpose

was to "sum up" and not "check up". This was evident in the way in which some tutors conducted their teaching. Formal assessment came at the end of teaching a topic, often as written classroom assignment, test or homework assignment. The feedback component which would have formed the basis for correction or improvement in teaching or learning was postponed or sometimes completely ignored. In an interview after observing the lesson of one tutor he explained that the incentive to use the information from assessment to further inform teaching was simply not there. He explained his reasons as follows:

> *"I teach over 200 students and it takes me a lot of time to finish marking even one small test ... if I am to use the assessment directly as part of the teaching then I must be able to mark it and discuss it in class before we start another topic but that is not possible ... the large student students we deal with make the whole thing impossible"* (Tutor, Presbyterian Training College)

In Wesley College two tutors reported a strategy which they had adopted to overcome a similar problem. They explained that they sometimes used an assignment topic as the basis for introducing or developing a topic. In a lesson based on "mathematical investigations", one of them introduced the topic through a group activity in which students worked on a task and presented a summary report of their results. The reports were debated by other members of the class while the tutor acted as a facilitator of the discussions. Talking with the tutor after the lesson, it emerged that actually this approach was to satisfy the need to assess and also complete the syllabus on time.

> *" .... If I wanted to do effective work I can't finish even five topics for the term because of the activities in college ... that is the real situation, so I have to find ways of making sure we finish the syllabus and manage to assess my students ..... so sometimes what I do is to select a topic or*

activity, introduce in class as an activity and have them work on it. After we have discussed their initial results I ask them to go and complete it and submit it in about a weeks' time. This helps us to move on." (Tutor, Wesley College).

Another tutor at Wesley College with considerable working experience in teacher training, (he had taught at the college for about fifteen years), expressed doubts about the possibility of using the present CA scheme to integrate with the teaching and learning process. His view was that the policy on CA was, as he put it, *"too sacrosanct and imposed from the top"* and this made it difficult for tutors to use assessment directly as part of the teaching and learning process. This view is related to the suggestion that under external pressure teachers often formalise assessment to produce something more "controlled" than routine classroom assessment (Torrance, 1993). Research evidence demonstrates that when faced with statutory assessments teachers set up activities specifically so that they can make their assessments instead of using normal classroom activities as the basis of assessment (Torrance, 1993). For example, Hewitt (1991) reports about secondary school teachers in the UK who set up special discussions to test "oral skills" in GCSE, "rather than assessing these in the course of routine classroom work" (Cited in Torrance, 1993; p. 338).

In the present case study the evidence suggested that most tutors did not set assessment in the normal context of classroom teaching and learning. In addition, very few assessments were set within the professional learning experience context such as teaching practice. Thus the assertion by the tutor in Wesley College that it was difficult to set assessment as part of routine teaching and learning was clearly evident.

In summary it was found that generally using CA as part of the teaching process

was something many tutors found difficult to do. Part of the difficulty was due to lack of knowledge and skills about how to use assessment as part of the process of teaching. Though many tutors recognised the importance of using the information from assessment to plan teaching, the time spent marking students' work made this virtually impossible. It was argued in this section that effective integration of assessment with teaching required that tutors develop an approach to teaching that placed assessment within the ordinary routines of classroom teaching and the professional learning experience. The evidence from the case study suggested that this was not the way many tutors conceptualised the idea of combining assessment with teaching. Instead, many tutors considered assessment as a special event that stood separate and detached from teaching. The key emerging issue about combining assessment with teaching is that it cannot be assumed to occur naturally. Tutors would need appropriate training, support, appropriate conditions and changes in pedagogy to promote the amalgamation of assessment with teaching.

6.12   In-service Training in CA

A section of the interviews concentrated on the type of in-service training (INSET) courses the tutors had attended and how these courses affected their performance in conducting CA. In an attempt to investigate the initial preparation that was made at the inception of the CA scheme, questions were asked about the relevance and adequacy of any INSET programme(s) attended.

The case study tutors had no exposure to the assessment framework for CA during their own training and therefore the only training programme to expose them to the requirements of CA was through regular INSET courses. However the tutor interview

results revealed that none of the tutors had received INSET directed specifically at the development of knowledge and skills in CA practises. Some of the case study tutors (6 out of 19) had attended INSET at which CA had been on the agenda but not as the main focus of the Course. The issues discussed about CA were to do with procedures for filling in assessment record forms and the content of the CA policy guidelines. No training had been organised specifically to develop tutors' skills in assessment and the management of CA practice.

Case study tutors blamed many of the CA scheme's problems on the lack of INSET Courses. As one tutor at Akrokerri Training College dejectedly pointed out:

"We have been in the system for 3 years but we have had no in-service training that would help us practice the CA well. You arrive in the training college and there is nothing to prepare you for all this CA work ... nobody cares what you do, ... its a joke!" (Tutor, Akrokerri Training College)

Another tutor commented:

"There has not been any in-service for those of us who recently came to the college to teach, so we do our own thing which may be entirely different or may not be important to the system ... So I think they have to organise workshops for us, if not for all, at least for those who are fresh in the system" (Tutor, Wesley College)

When asked about the kind of training in CA they would most want to receive many indicated that they would want training in how to assess the practical skill areas of the Course. As one Science tutor said:

"We want training in how to assess the students in the practical skills that are in the guidelines. We understand that we have to assess the various practical skills listed in the guidelines, but how to go about doing it is the problem." (Tutor, Wesley College)

Another tutor indicated that what he felt they lacked most was:

"Assessing students in the affective domain, how to assess their professional qualities as far as teaching is concerned .... how to observe them as they work and assess their abilities and potential. I think we focus too much on the cognitive. For training teachers I feel we should dwell more on the affective qualities but we haven't been trained how to do it. (Tutor, Presbyterian Training College)

Others cited training in how to "assess and teach" at the same time so that the assessment is directly relevant to the teaching and learning process. Some also pointed out that apart from the training in assessment techniques they would need practical support in how to implement the techniques in the classroom. These tutors complained that the planners of the CA scheme were ignorant of the difficulties they faced in carrying out CA and argued that any training should extend to the practicalities. As one tutor put it, *"the training should be related to the real situation and not theoretical"* (Tutor, Wesley College). They wanted INSET Courses to have a component which dealt with the performance of assessment in the real teaching and learning context. This view is related to the point in the literature that for INSET Courses to be effective it should probably include:

"... theory, demonstration, practice, feedback and classroom application"

(Joyce & Showers, 1980; p. 379)

286

According to Joyce and Showers, these five components of INSET are essential if teachers are to transfer acquired skills into the practical teaching situation. Furthermore, from reviews of INSET and its impact on new practice, they point out that knowledge of a scheme or programme alone is an insufficient condition for impact of training. "Organised knowledge that is not backed up by the acquisition of principles and skills and the ability to use them is likely to have little effect" (Joyce & Showers, 1980; p. 380).

From the accounts of tutors the practicalities involved in CA require that the content of INSET Courses extend beyond merely providing information about the content of the CA guidelines. This view was echoed by the Vice-Principal of Wesley College who was also unhappy with the use of "experts" in INSET Courses whose responsibility feel short of commitment to work with tutors to practice CA. He referred to two INSET Courses that he and Heads of Departments in the training colleges had attended when CA was being introduced, as examples of what he meant. He argued that:

"*We must operate under realistic conditions, any workshop on CA should reflect the actual opportunities which exist in the college for accomplishing them ..... a two or three-day workshop where people from 'outside' tell tutors how to go about CA is not sufficient .... these experts don't know what the problems and difficulties are.*" (Vice-Principal, Wesley College)

The above views relate to a tension recognised to exist between teachers and so-called expert advisers who many teachers feel are not in touch with the realities of everyday classroom practice. It appears "outside experts" would be more appreciated if they collaborate with teachers to implement change rather than offer advice. The wider case study evidence suggests that tutors feel that policy makers or programme advisers are

often out of touch with their circumstances or are simply unsympathetic to the problems they have to face implementing CA. The following tutor's comments sum up the feeling of many tutors regarding this issue:

> *"If you are going to follow the guidelines, you are not going to teach and you will be recording marks all your life, or you are going to give assignments minus any effective teaching ... these people from the Institute and Teacher Education Office don't know what they are talking about"* (Tutor, Akrokerri Training College).

Many tutors suggested that they would prefer college-focused INSET courses and one in which outside experts worked in close partnership with them to implement the CA policy.

The Principal of Akrokerri Training College pointed out that what would have benefitted his tutors were workshops which took tutors through processes of teaching and assessing. He added that the lack of regular INSET Courses had eroded the benefits that might have been gained at the onset of the introduction of CA. He also felt that regular INSET was vital in view of the high turnover of staff in the colleges.

There were also complaints that important INSET Courses on issues concerning tutors work were often attended by college authorities instead of tutors. Some tutors complained that when their Vice-Principals or Assessment Officers attended INSET courses they failed to communicate decisions reached on return to the college. From comments made by the Director of Teacher Education it was assumed that college authorities or their representatives who had attended INSET Course will organise meetings with their staff to disseminate decisions, reports and materials. In other words, that information, skills and knowledge acquired at INSET courses will "cascade" from top

to bottom. This was not taking place and some tutors felt the lack of communication of proceedings of INSET Courses had hindered reform implementation in the teacher training colleges. A similar finding was made by the ODA/JuSSTEP Impact Study (1993) when college tutors were interviewed on the usefulness of INSET Courses organised under the JuSSTEP reforms.

According to the ODA/JuSSTEP report:

"Very little post-INSET dissemination of ideas (was) taking place on return to the training college ... Most Heads of Department claim to brief tutors on INSET seminars attended. However, it appears that this is limited to making INSET documents available." (ODA/British Council/GES, 1993; p. 19).

The report also noted that the lack of post-INSET dissemination of ideas in the training colleges had particularly affected newly appointed tutors who were ill-prepared to deal with the new teaching methodologies and CA scheme. Unfortunately the situation had not improved as at the time of this research and reasons have already been articulated earlier in this chapter why such a problem persists. (see Section 6.1).

6.12.1 Problems with INSET Organisation and Content of Courses

The Director of Teacher Education pointed to the problem of cost as the main hindrance to regular INSET, particularly at the college-based level. However, as at the time of the second field research the Teacher Education Division had taken steps to decentralize the planning and organisation of INSET. Mathematics tutors at Wesley College reported that they had been involved in planning and organising a zonal INSET Course which addressed issues concerning their work. Similar INSET Course for

Mathematics tutors had been organised in the zone which included Presbyterian Training College. Minutes of the INSET Course from Wesley College showed that tutors had worked together to address such issues as effective Mathematics teaching in the training college. The minutes also showed that although there were discussions on CA it was still focused on general information about CA policy requirements. For example, there was no indication of practical training organised or feedback discussion on problems with its use in the colleges.

I was interested to know why tutors had not taken the opportunity to address some of the problems they had with the CA scheme. The views on this issue were revealing in that it related to a more fundamental problem with INSET in the teacher training system in Ghana. The main problem was the lack of technical assistance to help in the training of tutors in CA. At Wesley College the Head of Mathematics who played a key role in organising the zonal INSET Course explained the problem:

> "*We cannot train ourselves because we ourselves may lack the skills. With the CA I think we should have people from the Institute of Education and maybe Teacher Education office to train us in how to apply the CA effectively. Some of the new methods of assessment are not too familiar to us. When we meet at these courses we often find that none of us has the experience to help us know what we should be doing and how we should be doing it*" (Head of Mathematics, Wesley College)

Tutors also pointed out that even if they discussed the problems they had carrying out CA they had little power to change the structural and logistical constraints affecting its practice at the college level. Other tutors agreed technical assistance was a problem with the zonal INSET Course and that they needed more authoritative guidance to carry out the CA scheme. Tutors specifically requested guidance in interpreting new teacher

education policy and for training in effective management of CA practice to be offered.

My own experience working in the field of teacher training in Ghana provides evidence of the lack of technical expertise in CA training and development especially those skilled enough to offer leadership and guidance in promoting its development.

The lack of technical expertise and the consequences of that problem was vividly illustrated at the first INSET Course intended to introduce the CA guidelines for Post-Secondary Teacher Training in Ghana. At the time I had just been appointed a member of staff at the Institute of Education University of Cape Coast and attended as an observer. The main participants were Vice-Principals and Assessment Officers from all the thirty-eight teacher training colleges in Ghana. The Vice-Principal of Akrokerri Training College pointed out that many of the participants left despondent after that INSET Course. He recounted his experience at this first training course:

> "*The trainers argued among themselves about how the guidelines should be implemented and we sat there looking on. These were people, so-called experts who were supposed to give us an orientation to CA. If they were not agreed on what the principles were and how it should be conducted, then what were they telling us and what chance did ordinary tutors have. It was the most disappointing INSET workshop as far as CA was concerned ... there was no clear understanding of what the whole thing was about. You could see that the trainers were as new to the guidelines as we ourselves .... it was a poor start!*" (Vice-Principal, Akrokerri Training College)

It became clear that the reason for the apparent ineffectiveness of this course was due to the lack of training for the trainers who were subject specialist lecturers from the University of Cape Coast. It is important to point out that the CA scheme for teacher training in Ghana was developed mainly by expatriate ODA/JuSSTEP subject specialist

advisers who were working as consultants with the Teacher Education Division under the JuSSTEP project. Effectively the result was that the advisers conceptualized and developed the guidelines but left the task of introducing it to "local experts". Not surprisingly the lecturers showed little understanding of the scheme's conceptualisation and how it was to operate in practise. Evidence from my experience at this INSET Course suggested that inadequate coordination at the conceptualisation, planning and development stages of the CA guidelines between the "outside" and local experts contributed to its poor outcome.

According to the Principal of Akrokerri Training College, the content of the first INSET course to introduce the CA guidelines was inappropriate. In his view it had very little relationship to the task of assessing students. His expectation was that topics would have been treated at this Course which had direct relevance to the practical use of CA in the teacher training system. Instead it focused on such issues as:

> "recording procedures for CA, how to convert CA marks out of 100 to 40, importance of CA, record keeping and administrative responsibilities" (Principal, Akrokerri Training College)

This content of the INSET course demonstrated an assumption that college tutors would be capable of conducting CA effectively and therefore the requirement was a set of guidelines to manage tutors' assessment practice. Case study evidence however suggests that tutors feel the need for direct training in the techniques and use of assessment. One can conclude that for the case study tutors direct training and support in implementing CA was considered more important than the provision of a set of guidelines.

From the evidence available one can draw certain conclusions regarding INSET

for college tutors to implement CA effectively. First, INSET for college tutors, to train them in the skills and knowledge of assessment techniques and how to use them in the classroom was seriously lacking. This being a new assessment policy for teacher training, one might have expected that considerable effort will go into organising *regular* INSET Courses that will prepare and equip tutors for the task of implementing CA. Unfortunately this had not happened. Second, it appears that those college officials such as Vice-Principals and Assessment Officers who had attended INSET Courses were expected to disseminate what they had learned on return to the college. The case study evidence indicates that no activities were organised for tutors to communicate the proceedings of INSET courses on return to the colleges. In other words, the cascade model of INSET had not worked as intended. Some tutors, especially the recently appointed ones, are therefore ignorant of the principles and requirements of CA. This is because the colleges have been unable to organise training Courses for in-coming tutors on the principles, operation and management of CA.

The research evidence indicates that a weakness of the INSET system under the JuSSTEP reform programme was that no serious attempt was made to train local experts who would continue with training and development of CA. As a result, although zonal college-based INSET had been recently initiated, there appears to be a lack of personnel to train tutors to acquire skills and knowledge of CA practice. There was indication that tutors would want such training but in a context where the "experts" worked in close collaboration with them to address the problems of CA.

Undoubtedly one can conclude that the implementation of the CA scheme in teacher training in Ghana suffered serious setbacks because of inadequate preparation via

INSET Courses. The case study evidence clearly suggests that there was the need for *regular* INSET Courses to sustain JuSSTEP reforms in the training colleges.

The general poor quality CA practices in the colleges comes as no surprise when it is considered that many tutors are relatively new in the colleges and have had very little or no INSET. As table 6.4 below shows, about 50% of the case study tutors have had less than five years teaching experience at the training college level and of this none had attended an INSET course on CA.

TABLE 6.4.   Years of Service of the Mathematics and Science Tutors in the three case study colleges

YEARS OF SERVICE IN TEACHER TRAINING	NUMBER OF TUTORS	REMARKS
Tutors with 15 - 20 years	4	These were tutors from only Wesley College. All of them had benefitted from INSET courses organised under the JuSSTEP reforms
Tutors with 10 - 14 years	3	2 from Wesley College and 1 from Presbyterian Training College. Attended some JuSSTEP INSET courses.
Tutors with 5 - 9 years	2	These were tutors from only the Presbyterian Training College. Attended some JuSSTEP INSET courses.

Tutors with up to 4 years	10	3 were from Wesley College, 4 from Akrokerri Training College and 3 from Presbyterian Training College. None of them had attended any INSET Course at the time of the first field research in February 1996.

The remaining 50% had attended some INSET where at times issues about CA had been discussed. This statistic suggests that the case study colleges did not possess a highly experienced and trained cohort of tutors to manage the practice of CA in both Science and Mathematics. Coupled with the fact that there was no college-focused training to orient new tutors to CA and improve the assessment knowledge and skills of longer serving tutors, the dismal picture the evidence portrays about CA practice is hardly surprising. It is reasonable to conclude that the gains expected from CA could only be achieved if college tutors were sufficiently trained and provided the necessary structural support to develop further their skills and knowledge of assessment in teacher training.

Also, from the views about previous INSET Courses at the post-secondary teacher training level in Ghana, it appears that the Courses were too theoretical and did not address pressing concerns from tutors about CA.

The very logic of CA being in the best position to assess professional skills and knowledge not easily assessed by examinations is denied by the lack of relevant INSET support. In the next chapter some proposals are put forward about improving the present INSET situation to make it more responsive to the challenges of CA practice as revealed in this thesis.

CHAPTER 7

SUMMARY, CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS AND REFLECTION ON RESEARCH PROCESS

7.1   Introduction

This chapter will draw together the outcomes of the thesis and discuss various implications relating to issues such as the moderation of CA, developing tutors' competence in assessment and staff/student ratios. Many of the issues which have emerged from this research related to the broader challenge associated with changing practice in educational settings (Fullan, 1991). The significance of the process of change is discussed to highlight the critical conditions that were at stake in the change processes associated with the implementation of the CA scheme.

The chapter also examines the issue of the interaction between the CA policy and its practice at the teacher training college level in Ghana. Conclusions are drawn about how adequate the CA policy is in terms of it providing a framework for fostering the formative evaluation of student learning and development. Some basic issues that need to be discussed and resolved at the policy level to improve assessment practice at the teacher training college level are presented.

The final part of the chapter focuses on the strengths and weaknesses of the research and the challenges faced and lessons learned from using qualitative methodology in the research. As one would expect from researching any complex educational issue such as assessment the research unearthed other issues that needed further research.

Those issues will be discussed in a way which it is hoped will encourage follow-up research studies.

7.2   Summary of the Major Research Findings

(i)   Perception about the Function of CA:

The CA scheme was generally perceived as a means for improving students chances of passing the examinations or improving their overall performance to achieve qualification status. For many it stood as a way of reducing the element of risk associated with the one-shot single examination. This is an image CA has acquired in many other developing countries in which it has been introduced (see, Pennycuick, 1990; Ali & Akubue, 1988). The case study evidence showed that tutors CA practices gravitated towards external examination requirements. In general CA was seen and practised as supplementary rather than complementary to examinations (Dixon & Rawlings, 1987). The perception of CA as supplementary to the examinations does not do full justice to the underlying philosophy and function as defined in Chapter 3. The primary principle purports to focus the attention of CA on the needs of teaching and learning as it progresses. However, the case study evidence suggested that it is far more difficult to change attitudes to focus on assessment primarily to promote the teaching and learning process. Case study evidence shows that a major constraint to change is the political focus on summative assessment conditioned by the examination culture.

CA was also perceived as "an instrument of coercion, as a means of getting students to do something they might not otherwise be inclined to do ..." (Rowntree, 1987) - which was studying. For many tutors CA had become a lever for controlling social

behaviour in the context of classroom attendance.

Others saw CA as providing information about achievement that acts as a challenge, leading to motivation to learn to improve ones' chances of passing the examinations. Broadfoot (1996) has described this as the "legitimating ideology of assessment" and that for many students learning to pass the examinations is the only purpose for being in school (Broadfoot, 1996, p. 36). Similarly the evidence obtained from this research suggests that learning to pass the external examinations is the most important motivation that CA results provide for most students. Although many recognised the importance of CA for promoting teaching and learning this was not a view derived from conviction from practical experience. Instead it reflected commonly accepted theoretical knowledge about the function of CA.

From the views expressed about the function of CA it can be concluded that much more is needed to be done in terms of training and support to ensure that the full educational benefit of CA is achieved in practice. This is because the CA scheme was valued far more for setting and communicating examination expectations, controlling students' behaviour and providing extrinsic motivation for learning. What was emphasised less was its use to monitor or guide student learning while it is still in progress. Therefore, it found very little use in actively promoting teaching and learning.

(ii)   Formative Uses of CA:

There was very little evidence of tutors actually deriving learning related evidence from CA work to guide and counsel students. Generally tutors focused on the marks from CA to form a holistic perception of their students' progress. I argued that the use of

marks derived from CA was an inadequate and unsatisfactory means of determining students' learning progress and providing a framework for improving learning. The research showed that assessments were not specifically designed for diagnostic purposes, rather more for summative purposes. Some students claimed that investigative open-ended assignments which some tutors had used promoted self-diagnosis of learning through constructive engagement with the task. Sadly very few tutors used these kinds of assessment and therefore such benefit could be considered to be very limited.

The attitude of tutors towards using CA for formative purposes corroborates other research on a similar subject. For example, Becher et. al., (1980) found that although many assessment schemes are introduced for diagnostic purposes teachers rarely used them for that or for specifically promoting student learning. Similar findings have been reported by Pecku (1991) and Akwesi (1994) in their study of CA at the Basic Education level in Ghana. They found that generally teachers made very little use of assessment results for professional purposes or in attempting to diagnose student learning difficulties. Some educational researchers contend that it is because the assessment milieu in many educational systems is measurement driven that many teachers give little attention to using assessment to diagnose learning difficulties and to promote learning (Wiliam & Black, 1995; Black 1993). Certainly evidence obtained from this research appears to support that contention.

Thus the assertion that the introduction of CA will provide opportunity for diagnosis and remediation of individual learning difficulties is something which in reality hardly happens. Several factors were expounded in Chapter 6 to explain why in reality the use of CA for formative purposes has become elusive and so requires no elaboration

here. One point is clear though, judging from what many tutors said, it was obvious that they were not ignorant about the need to use assessment to diagnose and promote student learning. However, what was clear from the case study evidence was that tutors professional action regarding assessment practice was limited by the conditions under which they had to work. For example, because of the large number of students they had to deal with it was difficult to manage and communicate information about specific performances on assessment tasks. The student/tutor ratio is therefore a relevant issue to consider if one expects tutors to use information gathered through CA to help students improve their learning and performance. It leads to the need for CA procedures which provide the framework for students to actively participate in using assessment for learning. The research evidence clearly showed that students' role in assessment was mostly passive in the sense that most tutors' assessments did not involve students in a context where they were "... encouraged to examine their own work, compare it with what they and/or their teachers were trying to achieve and to spot where they have succeeded or not." (Sutton, 1997). In other words, the vast majority of tutor assessments did not provide the framework for self-diagnosis of learning. The view of this thesis is that some assessment procedures within the context of CA are needed to provide the framework for students to be able to develop skills in self-diagnosis of performance. (Issues relating to this issue has been discussed in Chapter 4).

(iii)   Problems that had undermined the effective practice of CA in the case study colleges included:

(1)   Limited time available for assessing students on more regular and

systematic basis. This problem had arisen because of the short college year resulting from extracurricular and examination activities taking up a considerable amount of the term time. There were also complaints that the curriculum was overloaded and had contributed to limiting the time available for CA work. These conditions appear to produce immense time constraints on tutors who feel compelled to resort to didactic approaches to teaching with a negative knock-on effect on CA practices.

(2)   Lack of professional support for implementing CA. There was clearly a lack of a system of internal and external professional support to help tutors carry out all the practices which constitute CA. Institutional support for CA in terms of offering professional guidance and addressing problems tutors encountered with its practice on departmental levels was non-existent.

(3)   Lack of a system for monitoring or moderating CA leading to uniformity of practice across colleges. This appeared to have devalued CA in the eyes of case study tutors and students many of whom felt the CA exercise had not been taken seriously by the teacher education establishment in Ghana. The lack of a system for moderating CA work at either the internal or external level also cast doubts on the reliability and validity of CA results which are used as part of the process of certification.

(4)   The excessively high student/tutor ratio which increases the marking workload of CA substantially. This problem has contributed to the use of assessment methods which do not increase excessively the workload in marking. The research showed that short tests and quizzes were favoured above extended assignments or essays which required extensive responses and therefore increased the workload in marking. Clearly some tutors choice of tests, quizzes and exercises over extended assignments were psychologically motivated as it dealt with weighing the personal cost of using one assessment strategy over other strategies.

The overriding conclusion from all of this is that effective CA practice depends largely upon favourable working conditions and supportive structures.

Other researchers who have studied the implementation and practice of CA in developing countries have noted similar problems as the above. In particular researchers have noted problems such as, managing assessment with large class sizes, organising INSET to impart skills of assessment and providing professional support through inspection and supervision. (See, Akwesi, 1994; Pennycuick, 1990; Ali & Akubue, 1988; Nwakoby, 1987; Lewin, 1993). For example, Pennycuick (1990) concludes that inadequate planning, resources and INSET support are the key problems affecting effective implementation of CA in many developing countries. However, the evidence obtained from this research further suggests that the problems of CA practice extend beyond structural and logistical provisions and support.

CA philosophy, as discussed in Chapter 3, require changes in approach to teaching

and assessment which the research evidence suggests is less easy to change. The challenge is changing attitudes and assumptions about assessment shaped by previous understanding about what assessment is. According to Torrance (1995) changing assessment practices require locating assessment innovation within the context of wider curriculum improvement. "Changes in assessment *per se* run the risk of being interpreted within a traditional 'testing paradigm' rather than a 'pedagogical paradigm'" (Torrance, 1995; p. 56). Interview evidence from the case study suggests that most tutors rely on their previous experience of what assessment is to make sense of and carry out CA. This previous experience seems to be mostly based on a tradition of testing as this is reflected in the vast majority of tutors' assessment practices. The lack of in-service training means that not much could be expected from the tutors in terms of using CA primarily for pedagogical reasons.

In summary, the problems of CA practice run deeper than general problems to do with logistical, organisational or operational constraints although they are relevant. Certain notions of what counts as assessment appear to have narrowed understanding of the possibilities inherent in CA. This leads to the next issue - notions held about assessment which influenced the way in which assessment was conducted.

(iii)   Attitudes rooted in the values and beliefs about assessment

There was clearly very little awareness of the importance of developing and using assessment criteria in the assessment process. Generally tutors did not feel students needed to be told anything about the criteria for assessing parts of assignment, especially before undertaking the assignment. It was felt that doing so will give the student an unfair

advantage and defeats the whole function of assessment. For many tutors, assessment meant setting up test situations that indicate reliably what the student had *personally* learned previously. It is quite clear that such a view about assessment stems from experiences with a psychometric testing tradition. It is a tradition which says that:

> "If individuals are to be compared with one another then we need to be certain that the test or assessment was carried out in the same way for all individuals ..." (Gipps, 1994a; p. 5).

Therefore offering "executable assistance" (Glaser, 1990) in such form as assessment criteria undermines the very basis of comparability. In summary, attitudes regarding the use of assessment criteria in the assessment process gave a reasonable indication that the assessment culture of tutors was largely embedded in psychometric traditions. It therefore suggested that many case study tutors are yet to get to grips with the practical implications of the concepts underlying CA as explained in Chapter 3.

As stated in Chapter 3, the underlying philosophy of CA is based upon a view of assessment as accomplished jointly by the teacher and student. In principle it is about teachers and students working *cooperatively* within the context of assessment to improve the student's performance. It therefore presupposes openness or transparency in the assessment process to *help* rather than sentence or judge the student. Unfortunately this was not the picture of assessment that emerged from interviews and discussions with the vast majority of case study tutors. What emerged was the perception that the role of tutors in assessment was to be an adjudicator and students in the subordinate role as the assessed. Such an attitude towards assessment quite clearly is inconsistent with a philosophy of assessment whose aim primarily is to support learning.

However, it is fair to add that the attitude of some tutors towards the issue of assessment criteria reflected more a lack of understanding about its underlying concepts than the view that it is counter-productive.

The Guidelines for administering CA in teacher training categorically states that:

"CA should not consist of only a series of tests given under examination conditions. Instead, a variety of assessment techniques and criteria must be used. The learning tasks and activities on which students are evaluated must be VARIED" (General Guidelines for Administering CA, GES/TED 1992, emphasis in the original)

Content analysis of tutors' CA tasks indicated that CA consisted mainly of tests and quizzes set under examination conditions. It also showed very little variety in the learning tasks upon which students were evaluated. The vast majority of assessments tested students' professional knowledge of teaching methodology or subject content knowledge with the latter dominating the assessment agenda. Very few assessments were based upon contexts that could be described as requiring students to reflect on practical professional learning experiences.

The gap between the construct of CA practice articulated in Chapter 3 and what tutors were doing could be blamed on the lack of pre- and in-service training to reorientate tutors in the expectations of the CA scheme. Not surprisingly with lack of orientation there was evidence that tutors looked to the requirements and expectations of the teacher training external examinations to set the agenda for CA.

7.3 Implication of Research Findings on Development of Assessment Policy for Post-Secondary Teacher Training in Ghana

It is my opinion that the findings as summarised in this section have clear implications for policy on assessment for teacher training and the development of INSET programmes to train tutors in assessment. (Some of these implications are addressed later in this chapter). The findings also pose a critical question which lies at the heart of the issues this thesis has been exploring, which is:

- How should CA as an assessment scheme be modelled to maximize positive impact on professional learning and simultaneously provide information that can also be useful for the certification process?

The research evidence suggests that to begin the process of improving the practice of CA in teacher training in Ghana this question needs to be addressed. The reason is that some of the difficulties with using CA at the college level, especially to promote learning, appear to arise because of the emphasis CA places on summative evaluation for certification. Consequently, this appears to have undervalued the use of assessments to specifically promote professional learning. Assessment for promoting professional learning and development is, however, at the heart of teacher training assessment philosophy as was established in Chapters 3 and 4.

There is little doubt that developing a model of assessment which maps more closely on to the processes for directly promoting learning makes achieving comparability more difficult (Gipps, 1994a). This is because tutors must develop and relate assessment

to the context and needs of student learning and as such assessments will need to be more flexible and adaptable. Thus, the conditions of assessment will vary making comparability very difficult to achieve. This leads to a further question that needs examining at the policy level, that is, how specific or flexible should the requirements of CA be and therefore what areas of professional learning should it address or leave out? Furthermore, what should be the basis for including or excluding students' CA work for use with the external examination component? There is no doubt that these questions have no simple solutions. Nevertheless, they are questions that I believe should inform and direct decisions leading to CA policy for post-secondary teacher training in Ghana.

Ultimately the issue about using CA for learning and as part of the certification process is about the status accorded to the professional judgements of tutors. As Gipps (1994a) has rightly put it:

> "To embrace educational assessment, with the professional involvement of well-trained teachers, will be to harness a powerful tool for learning" (Gipps, 1994a; p. 176).

Thus, the issue also extends to policy on pre- and in-service training. Sadly the research evidence on INSET on CA shows that case study tutors have lacked the kind of training that would make them more proficient at carrying out CA, especially to promote learning.

7.4   Problems associated with Changing Practice: Lessons from the Case Study

As pointed out in the introduction of this chapter, many of the issues that have emerged from the findings of this research related to the broader challenges associated with promoting and managing change (Fullan, 1991). The picture painted by the case

study findings about CA practice at the training college level in Ghana is a dismal one but shows some of the classic problems of change faced by many educational systems. For example, it highlights the difficulties involved with altering assessment approach or style when new skills must be acquired or additional time must be found to plan and practice new assessment approaches. Furthermore, the findings highlight how previous notions of what counts as assessment can narrow how tutors interpret and approach a new assessment scheme (Torrance, 1995). Besides, much of what appears to be the problem with using CA effectively is a result of lack of structural and logistical support, difficult conditions of operation and therefore cannot be blamed on individual tutors alone. In effect what the findings confirm is the fact that educational change includes but extends beyond the responsibility of the individual tutor. (See, Fullan, 1991 for a comprehensive review of such issues). The evidence leads to the conclusion that the introduction of CA into teacher training in Ghana was treated as an event and not as a process. Consequently there were no long term plans developed to deal with problems that might arise with its use.

It is fair to conclude that the JUSSTEP reformers and the teacher training establishment in Ghana misjudged the complexity of introducing the CA scheme. They did not focus enough attention on the conditions and support structures that will be needed to sustain its effective use in the long term. Lacking these, case study tutors were handling CA in the best possible way they could. Generally, tutors were clear about the need for change but felt the requirements of CA were impractical given the circumstances under which they had to carry out CA.

On the tutors front, the evidence obtained indicated that many were still clinging

to the traditional assessment practices' mostly reflecting examination styles. Classroom instruction followed a didactic and theoretical approach. Several reasons for all of this have been sufficiently articulated in the case study findings as reported in Chapter 6 and need not to be recounted here. Thus, the findings that emerged from the research were not so surprising as clearly there was a problem with the management of change regarding the introduction of CA.

There are several lessons that I believe can be learned from the findings with respect to promoting and managing new practice in the Ghanaian educational context. Two most important ones from the point of view of this evaluation study are as follows:

(i)   The conditions and assumptions underlying new practice need to be brought to the surface and vigorously examined for the implication of their use in the local context. For example, the concept of CA has evolved in a western context, conditioned by certain assumptions about the teachers' occupational culture, systems of support for promoting quality in teachers' assessments and characteristics of the school system. For example, the culture of professional collaboration among teachers operating in western systems may be more developed and therefore teachers may work much more closely together to support and promote new practices that are being introduced. In addition, western systems often have the advantage of trained local authority advisors who act as consultants and are key players in the educational enterprise including the processes of changing practice.

However, in a developing country such as Ghana, these conditions, services and trained personnel may be seriously lacking or the professional collaborative culture of

teachers may be less developed. Therefore, I believe that reform will need to focus much more on building sustainable structures and services with *actual* potential to support new practices. Also, more attention will need to be given to raising teachers professionalism to give them the confidence and collective ability to help each other implement change.

The point being stressed here is that although new practices may appear attractive on professional grounds, they will only be viable if levels of professionalism, expertise and support services are high enough to sustain them.

(ii)   Another important lesson that can be learned from the research findings is that more extensive measures of change may be needed if older practices are to give way or allow room for new practices. For example, it was evident from the research evidence that introducing a guideline document for tutors' to use to change their practices is insufficient. I believe that the guideline document should have been part of other important measures such as, long running workshops to address the issue of old notions about assessment that may be incompatible with the philosophy of CA practice. Although the research established that some tutors were making the effort to provide good learning opportunities through assignments, this was more the exception than the norm. As it was established in Chapter 6, several factors some found beyond tutors' control, had contributed to creating this scenario.

Thus, the CA guideline document could only be part of the solution to changing or improving the way in which assessment is practised in the teacher training college in Ghana. Orientation programmes designed to encourage tutors to make changes to the way they assess could potentially have made an effective impact on the outcome of CA

practice. However, as the research evidence indicated such activities were not given much attention.

Fullan (1982) has for example, rightly noted that:

"The implementation process has frequently overlooked people (behaviour, beliefs, skills) in favour of things (eg. regulations, materials) and this is essentially why it fails more times than not. While people are much more difficult to deal with than things, they are also much more necessary for success" (p. 249)

This observation by Fullan is very relevant to the issue of introducing CA practices into the training college system in Ghana. Although the JuSSTEP reformers were seeking a fundamental change in tutors' attitude and approach towards the assessment of training college students, the strategy for achieving this focused narrowly on a set of guidelines for tutors to use. What appears to have been underrated was the development of structures for training and supporting tutors as they use CA in the colleges.

Havelock and Huberman (1977) reviewed some case study evaluations of educational innovations in developing countries and found many of them lacking in the support implementors needed to make the transition from older to new practices. They stressed that:

"Plans which assume that people will accept to function in situations of high novelty and complexity without *long periods of preparation, safe practice* and *support* are erroneous. They underestimate the psychological importance of order, routine and predictability, although it is precisely these three qualities which careful planning is meant to achieve in facilitating the smooth and durable adoption of an innovation." (Havelock & Huberman, 1977; p. 159, my emphasis)

It seems to me that similar errors were made in the introduction of CA practices

311

into teacher training in Ghana. The JuSSTEP reformers I believe underestimated the need to concentrate effort in improving or changing attitudes and skills of assessment. If the introduction of CA was carried out over a much longer time involving close collaboration with tutors in the training colleges change, I believe, could potentially have been more effective.

7.5   Wider Implications of the Research Findings and Recommendations for Improving Assessment Practice in Teacher Training Colleges

7.5.1   Introduction

As pointed out in Chapter 1, the rationale behind introducing CA into teacher training in Ghana was to provide a means of widening the range of professional learning outcomes that could be assessed. For example, assignments which form the main part of the CA scheme were expected to include: short essays, group/individual reports, term papers, projects, etc., and were to reflect a wide range of professional learning experiences (GES/TED, 1992). The introduction of CA was to provide a means for forging closer links between assessment, teaching and learning. The conclusion reached by this research is that these two main objectives are far from being attained as the analysis of the case study suggested.

In this section of the chapter some of the wider implications of the findings will be explored and recommendations suggested for policy makers to improve the practice of assessment in the teacher training system in Ghana.

7.5.2 Implications for Assessment Reform in Teacher Training in Ghana

One of the important objectives of evaluation research as Beeby (1977) points out is to promote understanding of the way in which a system or programme operates with the intention to submit suggestions for improving it. Unlike traditional research which aims to produce new knowledge with often no specific consequences on practical decisions, evaluation research is deliberately undertaken as a guide to action (Wolf, 1987). This research was undertaken with a similar objective in mind (see Chapter 1). Therefore this section provides some suggestions on what could be done to potentially improve the outcome of assessment of students in teacher training colleges in Ghana. The suggestions reflect my personal journey of understanding into assessing professional learning in teacher education as presented in chapter 4 and what was found lacking in the conduct of CA in the case study colleges.

(i)   Adopting profiling as the framework for organising CA practice in teacher training in Ghana. The merits of profiling in relation to teacher education have already been discussed in detail (see Chapter 4) and need not to be repeated here. As was pointed out in Chapter 6, the emphasis on assessing for marks had narrowed the range of assessment methods to tests, quizzes and exams and led to tutors generally undervaluing formative assessment for specifically promoting learning. What this thesis argues for, therefore, is the development of CA based on the idea of profiling and where the profiling framework is purposely developed as a developmental tool and not simply as a tool to record assessment results. The outcome of the various assessments under this developmental process could then be reported as a matrix of marks, records of specific achievements with

information about strengths and weaknesses, description of tasks engaged in, etc.

The rationale for suggesting profiling is to place value on a wider range of professional learning outcomes in keeping with CA philosophy. By widening the evidential base of CA results through the method of profiling, this could potentially shift attention from assessing (just) for marks as other evidence would be required to satisfy the profile requirements. (The issues discussed about profiling in Chapter 4 could be a useful reference source for guiding policy makers in Ghana on profiling in teacher training).

Obviously because the system of profiling has never been tried in teacher training in Ghana, it will require very careful planning and sensitive introduction. Under the present assessment system in teacher training it can be envisaged that profiling will face two main challenges. The first would be how it combines marks and other non-quantifiable evidence about achievement within the profile matrix to lead to a summative judgement of achievement? The second is how the results of CA reported as a profile of achievements can be combined with national examination results? These are questions which policy makers and programme designers will have to discuss and resolve. They are questions which in my opinion should be at the heart of any consideration of assessment reform in teacher training in Ghana. The central role examinations currently occupy in the assessment system of teacher training in Ghana means that any college-based assessment scheme has to consider how it can operate in partnership with examinations without corruption by examinations. The evidence produced in this research is testimony to the fact that attitudes to assessment can be conditioned by the expectations and requirements of examinations.

(ii)   The practice of aggregating scores from such diverse areas as subject content knowledge and subject methodology to produce an aggregate score needs reviewing, for validity reasons. This is needed so that users of these scores, tutors and external users alike, can make meaningful inferences and informed decisions from them (Murphy & Joyes, 1996). Also, as Crooks et al., (1996) point out:

> "If too wide a range of tasks is included in an aggregated score, many correlations among the tasks will be low, reducing the coherence of the aggregated score. This lack of homogeneity will limit the generalizability, interpretability and usefulness of the aggregated score" (Crooks et al., 1996, p. 273).

Obviously this has implications for the design of the assessment programme. The current CA scheme does not stipulate clearly the proportions and aspects of subject content and methodology to be represented in the aggregated CA score. This has contributed to the scenario where some tutors' assessment consisted almost entirely of one aspect of the training curriculum, notably the subject content. In fact, tutors' assessments were so diverse in content and curriculum coverage as would make any attempt to interpret or compare the aggregated scores very difficult or unintelligible. This is a fundamental weakness of the present CA scheme.

(iii)   It is well established within the research literature that teaching and learning in any educational context can be profoundly influenced by the type of assessment procedures in use (Parlett & Hamilton, 1987; Biggs, 1996; Gipps, 1994b; Broadfoot, 1996). I believe that the converse could also be said to be true. The evidence obtained from this study suggested that there may be some relationship between tutors' teaching strategy and the

315

assessment approach they frequently relied upon. Tutors who were observed and reported using more of a didactic approach in teaching were also noted to use tests and quizzes as their predominant assessment method. The few who were making attempts to introduce some heuristic approaches in their teaching were the ones who appeared to be making efforts to introduce open-ended and investigation tasks. This indication highlights the importance of improving the instructional pedagogy of training as part of the process of assessment reform.

As noted in Chapter 6, classroom observations revealed that teaching in the colleges is still heavily didactic with learning conceived mainly as an aggregation of content. Also, case study tutors admitted when interviewed to not being able to use assessment appropriately as part of the teaching and learning process. Without the support of an instructional pedagogy which promotes diversity in approach to assessment, it seems unlikely that any recommended assessment scheme can have much effect.

In summary, evidence that emerged about CA practice suggested that it is failing to make the desired professional impact especially on learning. In this section the implications of some of the identified shortcomings for assessment reform have been suggested. It has been recommended that a review of the CA system in teacher training in Ghana is needed and certain proposals have been made based on research evidence presented in this thesis. They include the following:

- Using profiling as a framework for organising the practice and recording of CA results,

- Reviewing the current methods of aggregation procedures for CA to improve its

validity and,

- Improving approaches to teaching and learning in the colleges to support and sustain CA practices.

7.5.3 Implications for Improving the Competence of Tutors in Assessment

There is no doubt that the key to any assessment scheme fulfilling its purpose is the teachers who apply it. As Nitko (1995) correctly points out:

> "Any plan for continuous assessment is only as strong as teachers' ability to use it appropriately" (Nitko, 1995, p. 334).

Several instances cited in Chapter 6 clearly showed that for assessment in teacher training in Ghana to achieve the desired results, tutors' competence in assessment would need to improve considerably. Also INSET structures and programmes need to be developed to provide an avenue for continuing development of the skills of assessment. (This is discussed further in the next section). In Chapter 6 it was established that previous workshops on CA had been inadequate because they had not tackled the actual needs of tutors with respect to assessment practice.

Nitko (1996) has identified four key teacher competence areas in CA that are important to develop to build competence in CA. The evidence produced from this study suggests that all four will be relevant training objectives. They are:

> "(i) understanding the importance of assessing curriculum learning targets;
>
> (ii) understanding how to match alternative assessment methods with the

317

appropriate curriculum learning targets;

(iii) competence in creating own assessment exercises ... (eg. performance assessments and other alternative techniques);

(iv) competence in evaluation and grading students including how to weigh and combine results from several assessments taken over the term or year." (Nitko, 1996, p. 335).

Although there was evidence that some INSET Courses had addressed issues about CA, there were complaints that practical issues about it as described above were not the focus. Instead these INSET Courses had focused on explaining policy guidelines and record-keeping procedures. One very important area tutors' reported they needed training in was how to use assessment specifically as part of the teaching and learning process. Much it appears is assumed about tutors' ability to integrate assessment with teaching and learning. Most tutors pointed to the need to provide concrete guidance in how to do that effectively and efficiently. Other tutors reported they had no problem integrating assessment with teaching for learning improvement. However, further explanation of what they meant showed that this had very little to do with using assessment specifically to promote understanding. Instead, it was used as a tool for motivation to study and sometimes as a mechanism for social control. Most of the assessments I inspected lacked the quality of creating a framework for guiding students to improve understanding of learning-related issues.

Nitko (1995) has reported of a proposed strategy for building teachers competence in assessment in Jamaica, from which I believe lessons could be drawn for the situation

in Ghana. In this scheme a central agency develops certain tools which teachers may use at the local level for diagnosis and monitoring student progress. The innovation in this scheme is that each school has a specially appointed senior teacher for assessment. This teacher is responsible for ensuring the appropriate implementation of assessment policies and procedures in the school and working with and training the schools' teachers in using appropriate assessment techniques. An officer from the training agency then monitors and offers professional help for the school-based assessment coordinators.

This system has similarities with the idea of the 'Assessment Officer' introduced at the inception of CA except that the Assessment Officers received no special training in how to help tutors professionally to administer CA. The Assessment Officers role in the management of CA was purely administrative (GES/TED, 1992). Their task was to ensure the proper filling in of assessment record forms and collate the marks for onward transmission to the Institute of Education University of Cape Coast. They were not provided with the training that would have equipped them to offer professional assistance to tutors in applying assessment appropriately. Had they been equipped to do so, it would still have been difficult for them to function effectively because of their own teaching and assessment workload. As one such Assessment Officer pointed out when I asked about how he was coping with helping new tutors with their assessment responsibilities:

> *"How do I find the time to help, I am struggling myself to finish the syllabus and give all the assessment required ..., I just make sure at the end of the day they have filled in the appropriate records, that's all I can do"* (Assessment Officer, Akrokerri Training College)

Thus an approach for improving the situation, apart from offering tutors relevant

professional training, would be to reduce their teaching workload. This would enable them time to attend to the training needs of fellow tutors through college-focused INSET. As in the Jamaican example the Institute of Education acting as the training agency could help develop appropriate assessment procedures for tutors to use. It would probably be necessary, as in the Jamaican model, to appoint trained external officers to help Assessment Officers in working with and training tutors in using appropriate assessment techniques.

Recently six teacher training INSET centres were established around the country and could serve as workshop centres for upgrading skills and competence of tutors. Thus what is being proposed is a two-tier INSET system. One at the college level where trained Assessment Officers in collaboration with Institute of Education staff can work together to upgrade tutors' assessment skills. The other system of INSET could be organised at the six established INSET centres. However, because of the large number of tutors that might need training (judging from the thirty-eight teacher training colleges in Ghana) it would probably be expedient to use the six INSET centres for training of trainers at the college level. I believe that the college level training should be built into the programmes and activities of the colleges. The idea is for the training to become part of normal college routine and not a one-shot professional exercise.

Finally, because of the high staff turnover in the colleges, it makes sense that the pre-service training of tutors pays attention to newer practices being introduced into the training college system. The rationale behind this would be to ensure that graduating tutors entering the training college are conversant with the philosophy and practice of new assessment procedures and can contribute towards its development.

7.5.4   Implications for Restructuring In-Service Training

In-service training on assessment was noted in Chapter 6 as one of the areas where there was the need for urgent improvement. However, the overall research outcome suggests that the solution to the problems of CA is not simply the organisation of INSET Courses to introduce tutors to new procedures and policy requirements of assessment. More important, I believe are INSET course objectives defined more in terms of specific *behavioural* or *attitudinal* changes in relation to assessment, instead of defined in terms of introducing policy guideline documents. Evidence from the case study point to the need for some old attitudes and values of assessing to change if new forms of instruction and assessment are to function effectively and efficiently. Therefore, the suggestion is for INSET courses to be designed to engage tutors in activities that will challenge old values and traditions about teaching, learning and assessment recognised to be limiting the impact of new practices. What is being proposed is for new materials, methods or guidelines to be introduced within the context of changed values and attitudes.

My own experience and evidence from the case study tutors suggest that INSET programmes where trainers came in just to introduce new guidelines or materials through lectures are ineffective. Tutors who had attended INSET courses felt there should be more opportunity for them to participate in developing INSET programmes so that real needs are addressed by them. The recent INSET workshops for Mathematics tutors in the colleges organised on zonal basis where tutors were responsible for setting the agenda is therefore very welcome. Zonal INSET workshops are advocated on the practical grounds that there may be no other way of coping with the sheer numbers of tutors in need of training.

Case study tutors who had attended INSET also complained that officials or resource persons never followed-up the INSET course to offer advice on the problems of carrying out new ideas or introducing new materials. This seems to be a common experience of many INSET programmes in Africa as Greenland (1983) reports. (See also Ali & Akubue, 1988). Greenland (1983) pointed out that regional district inspectors appointed as resource personnel often failed to follow-up participants because of bureaucratic pressures and financial constraints. As a result, many innovations failed to become rooted at the levels where they were meant to be implemented. The message from this and the present case study evidence is that INSET should not end with the completion of a course or workshop. In other words, for example a two or three-day workshop would not be an adequate method for implementing innovations or improving practices. Follow-up to offer practical support should be seen as a logical extension of INSET and therefore needs to be incorporated into its planning and funding.

From the review of research into INSET systems Joyce & Showers (1980) concluded that where mastery of a new approach is needed, INSET courses need to extend beyond the level of presentation and discussion.

"If the theory of a new approach is well presented, the approach is well demonstrated, practice is provided under simulated conditions with careful and consistent feedback, and that practice is followed by application in the classroom with coaching and further feedback, it is likely that the vast majority of teachers will be able to expand their repertoire to the point where they can utilize a wide variety of approaches to teaching and curriculum. If any of these components are left out, the impact of training will be weakened in the sense that fewer numbers of people will progress to the transfer level (Joyce & Showers, 1980, p. 384)

Lessons about INSET can also be learned from cases in Britain where local

322

authority advisors act as consultants to school staff in the process of assessing their training needs and sometimes in locating outside help. In Ghana, staff from the Institute of Education University of Cape Coast could be trained to serve in a similar capacity and also as resource persons in these INSET programmes.

In summary, the point being put forward is that INSET programmes need to be a vital part of the teacher training system in Ghana to serve as an avenue for promoting continuing tutor development. What is more important is for the programmes to achieve positive results and to do so they will probably need to combine theory, modelling, practice, feedback, and coaching to application (Joyce & Showers, 1980).

7.5.5 Implications for the Development of a Moderation Scheme for CA

A frequent complaint from tutors about the CA scheme was the lack of a system for moderating assessment practices within and across colleges. There were reported cases of doubtful validity of CA marks sent by colleges to the Institute of Education University of Cape Coast. Others reported that some college principals had openly instructed them to award their students high marks as other colleges were allegedly doing so. Undoubtedly the lack of checks and balances in the CA system had created suspicion over the validity of other colleges' CA marks. In Chapter 6, I argued that there is considerable room to question whether students CA marks gave a reasonable indication of their progress or potential. This was because tutors were noted not to be using any explicit assessment criteria or goals against which, assessment outcomes could consistently be evaluated to keep track of progress. There is no doubt that to improve the quality of CA and enhance confidence in the inferences from its results some system of

moderation needs to be in place. Also, the introduction of moderation, accompanied with a review of the CA system, could offer the chance for collaborative INSET exercises that could improve the validity and reliability of CA results.

The reconciliation model of moderation described in Chapter 3 seems an appropriate model to adopt for the Ghanaian context as it will bring tutors and experts together to work in close collaboration to achieve common standards. However, as has already been mentioned, case study tutors knowledge and expertise in assessment techniques were generally narrow and limited. Thus, it may be necessary initially to use moderation as an opportunity for developing further, tutors' knowledge and skills of assessment to the point where they could work in partnership with outside moderators in a group/consensus moderation setting. The purpose of such group/consensus moderation will be to train the tutors to be able to arrive at shared understandings of the criteria that the group have agreed upon. (Issues relating to group/consensus moderation were discussed in Chapter 4). The already established zonal INSET centres could serve as venues for such exercises to take place and where samples of students work could be brought for verification and audit. An additional benefit is that the moderated work at the zonal level could be used as points of reference during college-focused INSET sessions.

Evidence from the general guidelines for administering CA in the teacher training institutions shows that the issue of the characteristics of tutor assessments such as content quality and nature of scoring criteria was not addressed by the policy planners. It will prove difficult to compare samples of assessed work if such criteria were not already clearly defined or described to offer guidance in negotiating the quality of sampled students' work. I believe that this is one of the important issues that the development of

a moderation scheme for teacher training in Ghana has to seriously address to increase the likelihood of its effectiveness and impact.

Moderation of tutors assessed work will undoubtedly be costly as there are thirty-eight teacher training colleges in Ghana each offering about thirteen subjects. Therefore it will raise the problem of cost and funding. However, from a professional perspective the cost of moderation must be weighed against its value in terms of its potential for supporting professional development and improving the tutors' competence. The main benefits are in relation to developing better understanding of assessment, what counts as valid assessment and how it may best be produced. In addition, moderation could provide clearer understanding of the standards teacher education seeks to foster and help to promote improvements in the quality and products of teacher training.

7.6   General Issues Emerging from Research for Policy Consideration

7.6.1   Improving Teacher Training in the Universities in Ghana to support reforms in the Training Colleges

The principal objective of the JuSSTEP innovations as pointed out in Chapter 2 was to change the traditional pattern of instruction from a didactic teacher-centred approach to a reflective, analytical and practical approach. JuSSTEP reformers made the observation that prior to its reforms students in the training colleges were:

> "... largely the passive recipients of 'content' and 'theory' while methodology and practical teaching strategies were largely ignored ... student participation and interaction was almost non-existent" (ODA/British Council, JUSSTEP 1993, p. 1)

Unfortunately the evidence from the case study leads to the conclusion that the situation has not improved much. Consequently, the expected influence of instructional and methodological innovations introduced by JuSSTEP on assessment practice has not materialised. Two reasons for this failure have been identified in this study. They are:

(i)   Many of the tutors who were initially trained through JuSSTEP programmes to implement the innovations for teacher training had either left the service, been promoted to administrative positions or gone on to further education. In fact, of the 19 case study tutors, only 9 had benefited from any kind of JuSSTEP in-service training. Thus many of the tutors were not accustomed to the new approaches of training that the innovations had sought to foster. It is important to point out that most of them also had very little or no exposure during their University teacher training to an interactive methodology of training. This leads to the second reason for the little impact the educational reforms in the training colleges appear to have made.

(ii) Innovations in teacher training colleges did not come with significant improvements in teacher training programmes at the Universities of Cape Coast and Winneba. (These are the two teacher training Universities in Ghana). As I pointed out in Chapter 6, from my experience, the methodology of training used in the teacher training departments of the Universities still remains didactic and theoretical. Thus JUSSTEP achievements were bound to be short-lived because incoming teacher educators from the Universities were not equipped with the

326

necessary skills and values to support the reforms in the colleges. The point is, the innovations should have been part of a wider programme of teacher training reforms in the country.

Case study findings suggest that no matter the ingenuity of reforms at the PSTT teacher training level, its impact will be limited if it does not reflect wider teacher training reforms. Therefore, as a proposal for policy makers to consider, it is being suggested that teacher education programmes at the two Universities should be reviewed. Attempts should be made to bring them into line with changing concepts in teacher education, especially in areas relating to instructional pedagogy and assessment. At the time this research was concluding plans were being drawn for another phase of reforms for early teacher education in Ghana. (GNAT, 1997). There were no indications that such plans would extend to the Faculties of Education in the two teacher training Universities where the majority of training college tutors receive their training. The research evidence clearly suggested that in-coming tutors to the colleges, who have had no reorientation towards new practices being introduced in the colleges, cannot make much contribution to the changes.

7.6.2   Subject Content and Methodology Dilemma

Finally, another important aspect of early teacher training in need of review is the content and methodology combination in the various subjects. Many teacher education commissions and educators in Ghana have pointed out that efforts should be made to ensure that one is not given emphasis at the expense of the other. (eg. Ghana Ministry

of Education, 1993; 48th Annual New Year School Report, 1996).

Case study tutors complained that they found it difficult to keep a balance in teaching and assessment between the subject content and subject methodology. The main reason given was that because of the poor academic background of the majority of students tutors were inclined to spend more time on the subject content. This was also reflected in assessment where the focus was mostly on the subject content area. Another reason given was that the existing syllabuses were content overloaded and therefore tutors had to spend more of their time on the subject content producing a knock-on effect on the focus of their assessments.

For a teacher training programme it was worrying to discover that assessments focused disproportionately on the content knowledge of the subjects compared with the subject methodology. Fortunately under current proposals for teacher training reforms, the training syllabuses are expected to be replaced with course modules in which the subject content is expected to be developed using an activity-based teaching methodology approach (GNAT, 1997). Such an approach could encourage tutors to focus more of their assessments on issues regarding the effective processes of teaching and learning the subject.

However there was clearly a need for some attention to be given to the subject content knowledge as classroom observations and interview evidence suggested.

> "*I find it amazing that so many students cannot make the appropriate link between calculating the areas of a square as the sum of the area of the two triangles that is produced from the diagonal of the square.*" (Extract from my observation notes: Akrokerri Training College, 1996)

One tutor lamented:

> *"Sometimes what students write makes you wonder how on earth they had the credits needed to come into teacher training, how on earth could they claim they got what they claim and still think that $1/2 - 1/4 = 2/6!$ ..."*
> (Tutor, Presbyterian training college)

Similar comments were made by other case study tutors who stressed that most of the students possessed a very poor grasp of the subject content. Researchers, Stein et al., (1990) have suggested that student teachers with weak grasp of the subject content matter tend to instruct pupils in ways that overutilise procedural rules and lead to understanding which is structurally weak. If students coming into PSTT in Ghana have weak knowledge in the subjects they will be teaching, then it seems logical that some effort is made to improve their knowledge so they develop the confidence and ability to teach competently.

Also, the issue of entry qualification into PSTT needs to be looked at again. In Ghana the entry qualification for PSTT is among the lowest for post-secondary professional institutions. Until 1994 the entry requirement was 'O' Level with a minimum of 5 credits excluding Mathematics. The inclusion of Mathematics as a compulsory element of the 5 credits only took effect from 1995. Obviously the problem is that if the entry qualification levels are raised any further it may result in fewer students qualifying for teacher training. With the demand to train more teachers to carry out on-going reforms at the basic education level this may not be a welcome alternative.

In my view a compromise strategy would be to concentrate, in the first year of training, on the subject matter content area leaving the remaining two years of training

purposely for developing the knowledge and skills of teaching. This could be one way of

clarifying the role of assessment at the different stages of training and simplify the function

of CA for tutors.

7.6.3 The Problem of High Student-Tutor Ratio and the lack of Resources in the

Training Colleges in Ghana

In the analysis in Chapter 6, attention was drawn to the high student /tutor ratios

in the case study colleges. (See also Appendix 1). Tutors explained that their inability to

give students appropriate and sufficient assignments was because they were dealing with

very large student numbers. For example, a Science tutor at Akrokerri Training College

explained that in one particular year he was the only Science teaching tutor for well over

300 students. Infrastructure-wise problems identified in the study as contributing to

ineffectiveness as far as teaching and assessment was concerned were: the inadequate

provision of instructional resources to support a methodology of training that is congruent

with new assessment policy and inadequate laboratory and library facilities. (See

Appendix 1). I observed that the combination of high student/tutor ratio and inadequate

facilities was demoralising for tutors. Many tutors felt that under such limiting conditions

the current CA system could not be expected to achieve much.

The problem of high student-tutor ratio is not only restricted to the case study

colleges. JuSSTEP in its impact study produced evidence which showed that this was a

problem in other teacher training colleges and affected other subject areas. (See table 7).

The table shows that although for most colleges student-tutor ratios fall within the official

staff to student establishment limit of 20:1, when calculated on subject basis they can

330

TABLE 7   STUDENT/STAFF RATIOS IN SELECTED TRAINING COLLEGES

COLLEGE	NUMBER OF STUDENTS TO EACH TUTOR BY SUBJECT*				OVERALL STUDENT-TUTOR RATIO**
	ENGLISH	EDUCATION	MATHS	SCIENCE	
Akatsi	222	166	271	263	22.2
Presby	132	159	193	200	19.4
Dambai	162	161	226	86	26.9
Holychild	117	117	227	202	17.6
Jasikan	137	137	156	120	16.4
Kibi	114	114	90	192	15.2
Atebubu	105	105	158	88	13.7
Bagabaga	247	247	185	150	27.4
St Joseph	152	156	315	630	18.5
Tumu	100	67	100	143	9.6
Ahmadiya (N.J. - Wa)	164	109	109	167	16.4
Wesley	149	186	149	137	22.6
GENERAL RATIO	159	144	186	198	18.2

Source: JuSSTEP Impact Study ODA/British Council/GES 1993, p. 17

* "The table represents the student-tutor ratios calculated according to the overall number of students in each college divided by the number of tutors in each department. The calculations counted every tutor as full time whereas in practice some tutors may be in responsibility posts on a reduced timetable or part-time. In some cases only first- and second-year students were counted as not all third year students do the subjects. Therefore the table represents an optimistic account of student-tutor ratios" (JuSSTEP Impact Study 1993, p. 3)

** The overall student-tutor ratio was calculated according to the total number of students in each college divided by the number of tutors in the college.

be exceedingly high. The range of students taught by each tutor as the table indicates varies from 67 to 630. (67 for Tumu and 630 for St Joseph's). This really puts into perspective the reality of the problem of high student/tutor ratio in the training colleges in Ghana and the implications for CA.

The table is very revealing because it clearly shows that not only is the official ratio of 20:1 misleading but also is not practical for meeting the needs of teaching and assessment. Such a high and intolerable student-tutor ratio in the training colleges would definitely have adverse implications for instructional and assessment practices.

The current official recommendation is for the ratio to be reduced further to 15:1 (Ghana Ministry of Education, 1995). From the point of view of meeting the needs of teaching and assessment this is still inadequate as the principle upon which the calculation is based is unsatisfactory. My view is that the official student-tutor ratio should be decided not only by the overall student enrolment but also by the expected load per subject. Thus what is being suggested is a ratio calculation that allows for the proportion of students likely to be studying for particular subjects. For example, in subjects such as Mathematics, Science or Education because all college students have to study it in the first two years of training the numbers compared to other subjects can be high. It is reasonable for this factor to be considered in arriving at the ratios. In effect, this could lead to different ratios being projected for each subject area.

Another factor observed to affect the staffing situation was the acute accommodation problem in the colleges. Since the establishment of the three case study colleges no major investment into the provision of staff accommodation has been made. The college authorities pointed out that even if they could recruit more staff this problem

would place limitations on the recruitment.

In summary, staff/student ratios, college instructional infrastructure and staff accommodation are issues which would need addressing by policy makers if gains are to be made in the quality of post-secondary teacher training in Ghana.

7.7 Self-Reflection of the Research Process

7.7.1 Strengths and Limitations of the Research

One benefit of staying in the case study colleges during the fieldwork was the opportunity it afforded me to put into proper perspective the views of tutors and students. For example in drawing attention to the problem of time constraints on effective practice of CA it soon became clear that this was not a straightforward issue. The main problem was the shortened college year due mainly to extracurricular activities and the formal examination structures set up in the colleges (see Chapter 6). However, despite these constraints, some tutors were obviously making more effort (although very few) with the available time than others. The difference was between those seeking to use assessment much more imaginatively and thus doing fewer but relatively more quality assessments and those who felt CA meant doing more tests and quizzes. The latter group were those particularly worried about time, reducing almost every issue about CA to the problem of time constraints.

The above example is to illustrate the particular strength of the naturalistic approach to evaluation research used in this study. It was possible to explore issues at a much deeper level than otherwise might have been possible through a remote approach. Thus, being in the colleges produced valuable insights into issues that might not have

surfaced had I used, for example, a structured questionnaire. It is not being suggested that positivist approaches do not do a good job of identifying critical issues, only that the approach adopted in this study made it possible to value the insights generated by close, personal contact with tutors and students.

Another strong point arising from close contact with case study sites was the insights gained about the institutional culture and knowledge about its infrastructure. (See Appendix 1). Together this enriched the data used for the research and produced better understanding of the problems undermining the effective practice of the CA scheme.

Using a two-stage data gathering strategy greatly enhanced the validity of the data. During the first data collection period a semi-structured interview guide was used to reconstruct views and perceptions held by students and tutors about the CA scheme. Going back on a second fieldwork trip allowed the reconstructed views, in the form of summarised statements, to be tested for their validity. The second round of interviews could be described more as "conversations with a purpose" (Robson, 1993) and were again taped, transcribed and searched for further evidence. These conversations were conducted with tutors using the summarised statements to provide a framework for the discussions. This technique produced valuable insights into some of the issues that did not emerge during the first case study visits.

Another strength of the research is the broad spectrum of people it covered. Interviews and discussions with students, tutors, policy planners, principals, ministry officials and JuSSTEP expatriate staff broadened the dimensions of the issues being explored and allowed further lessons to be learned. For example, one important lesson is that if an assessment scheme is to be applied consistently then it needs to be clearly and

fully understood by all connected with it. It was quite clear from the views expressed that this was not exactly the case. In particular, programme planners and officials held views about assessment of student teachers that were not exactly congruent with views held by students and tutors. This in itself was revealing as it implied that the philosophy behind CA for teacher training had not been clearly communicated or understood by all involved with it. Detailed discussions of some of the reasons for this have been analysed in Chapter 6. Thus, expanding the case study sample to cover a broader group of people connected with teacher education enriched the data and issues emerging from the analysis.

Finally, the case study findings indirectly provided valuable understanding about the process of educational change which could have implications for future attempts to restructure or reform the teacher training system in Ghana. As Cronbach (1982) points out:

> "The proper function of evaluation is to speed up the learning process by communicating what might otherwise be overlooked or wrongly perceived. The evaluator, then, is an educator" (Cronbach, 1982)

The issues raised by the study, as an evaluation study, are valuable for current government efforts to introduce new models of training and assessment into the teacher training system. Detailed discussions on some of these issues have been presented in the earlier sections of this chapter and the lessons that could be learned from them explored.

Three main methodological limitations were identified in the research process. The first was the restriction imposed on the data because of the decision to focus on only Mathematics and Science tutors in the colleges. The guidelines for administering CA in the training colleges in Ghana provides a general framework for individual subject panels

to develop the content and basic structure of their CA programme. (Subject panels are professional teams established as a working group consisting of a lecturer from the University of Cape Coast and a representative group of tutors from the colleges. They meet periodically to review curriculum and assessment matters relating to the subject they belong). Thus, there are some differences in emphasis in the content and structure of the various subjects which reflects in the individual CA guidelines designed for each subject. This means that there may be slight differences in experience of CA depending on the requirements of the particular subject. For example, the technical and vocational skills' subjects have a CA scheme tied in with the practical nature of their subjects and have developed an internal monitoring system to ensure quality.

However, I believe that the differences in experiences are not so wide as to undermine the validity of the study. Tutors were operating under fairly similar conditions in the colleges and these conditions were often the main influencing factor on attitudes towards the CA scheme.

The second limitation of the study was the focus on three case study colleges out of a total of thirty-eight. Critics could argue that this is too small a sample to form a generalised view of the practice of CA in the training college system in Ghana. There is no doubt that using a sample of three colleges with limited geographical representation places limitations on the extent of generalisation. However, there were practical reasons for focusing on three colleges. The first was the fact that as a single researcher working within the constraints of time and on a limited budget, it was not feasible to study more colleges as might have happened if the research was a team effort and resources were generous. Nevertheless from my previous professional experience with working with

336

tutors in the training colleges, I am confident that the findings are a fair representation of the situation in many colleges. Also, although the case study colleges could be described as a "convenience sample", they share many similarities, structurally and logistically, with other training colleges in Ghana. Besides, the primary intention of the study was not to come out with sweeping generalisations that speak for all the teacher training colleges in Ghana. The objective was to understand the issues affecting CA within the context of the three case study colleges. However, because the basic conditions in the other training colleges in Ghana are not very different, I believe the key issues would still be relevant for the vast majority, if not for all the other training colleges.

It is important to stress that the value of the findings of the study is in the consistency with which evidence replicated from one college to the other. I share the view of Yin (1994) that replicating logic in case study research is much more important than a sampling logic. In other words, the case study's power resides in the fact that through in-depth focus on the research issues using a carefully designed framework, it produces a set of findings that can explain *similar* cases. The underlying principle of the case study analysis is as Yin (1994) puts it:

> "Across cases, (*the procedure of analysis used in this case study*) the report should indicate the extent of the replication logic and why certain cases were predicted to have certain results, whereas other cases - if any - were predicted to have contrasting results" (Yin 1994, p.51, italics mine)

Thus the steady accumulation of research data from one case study site to another produced findings that could be argued to have good predictive validity.

The third methodological limitation of the case study arose from the problem of *reactivity*. It is a term "used to describe the unintended effects of the researcher on the

outcomes of the study" (Maykut & Morehouse, 1994, p.155). In this case study reactivity was particularly an issue of concern because the topic of the research was closely related to my own professional work. The nature of reactivity experienced in the study was of two kinds: first, some tutors appeared to assume I should know a lot about CA therefore their responses to my questions often reflected an assumption about shared knowledge. It was almost as if to suggest; "I really do not have anything to say which you do not already know about". Such persons did not talk about CA in terms of their *personal* experience and views, preferring to give theoretical and noncommittal responses. To overcome this problem, I frequently had to ask them whether what they were saying compared with their own experiences or personal view. This was necessary to get 'relevant' and 'useful' data. In the end, it proved to be helpful as it made many reveal things that fell short of recognized good practice or exposed deeper convictions about assessment.

The second problem of reactivity faced was the perception that I was a 'spy' with ulterior motives for coming to talk to students about CA. Some of the 'fruitless' and frustrating interviews were those in which respondents were obviously trying hard not to say anything detrimental about CA in their college. Even after assurances of confidentiality it was evident that with some respondents there was still some uneasiness in the interview dialogue. It must be pointed out that these problems gradually faded away after constant reassurances that I was there purely for research purposes. As it turned out most of the case study tutors and students were extremely frank about their views and experiences of the CA scheme.

7.7.2 Some Challenges faced in Interviewing

Having come into this research from a science/mathematics background, where my training in research was predominantly based upon a hypothetico-deductive methodology, doing a purely qualitative study presented different challenges. Relying on "qualitative data, holistic analysis, and detailed description derived from close contact with the targets of study" (Patton, 1988, p.117), meant as a "human instrument" (Maykut & Morehouse, 1994), my actions and behaviour had become as much important, if not more important, as the overt research instrument (eg. interview schedule). This meant maintaining a posture throughout the data gathering period that would not undermine the validity of the views and information from the subjects of the study. How this was achieved has been thoroughly discussed in Chapter 5. However there were challenges and lessons learned about using the interview as a research tool in different circumstances and situations. This is the subject of discussion in this section.

As, already pointed out, the main research tool in the study was the interview and many of my traditional perceptions or understandings of it were challenged by the situations I was confronted with. Upon reflection there were two significant challenges that I faced as a qualitative researcher with respect to the interview work and lessons I subsequently learnt from interview interaction.

(i) The Challenge of Neutrality

- Can/should one always remain neutral in an interview situation?

- What are the advantages and disadvantages?

By neutrality it is meant concealing ones' own inclinations on the subject of the

interview and being passive so that interviewees are not influenced in what they say by them. The objective of such neutrality is to obtain honest and personal views that reflect the interviewees experiences or convictions. Although care was taken not to overtly state my views, as this would have jeopardised the credibility of the data, sometimes presenting counterpositions served to promote more discussion and bring to the surface deeply rooted convictions. It has been my experience from interviewing teachers and students in Ghana that some tend to give very affirmative responses even in the face of compelling evidence suggesting otherwise. (This issue was discussed in more detail in Chapter 5). When I felt interviewees were behaving in this manner, by carefully throwing in some alternate perception or idea, deeper reflection on what had been said was provoked. The signal of a more personal position, view or conviction in contrast to a rhetorical response, could often be detected with statements beginning, "actually what I believe is ..., or actually what happens here is ...". This strategy greatly enriched the data as it made it unequivocally clear what people truly felt, had experienced or believed about the issue of the discussion. However, once with a tutor, the strategy seemed to create a tense atmosphere because he felt under suspicion regarding what he was saying. Thus, there are advantages and disadvantages of suggesting a rival view either from previous interviewees or from the researchers' point of view. In this study when applied it enabled some interviewees, students in particular, to say what was useful for me concerning real convictions or experiences.

On the issue of whether one should always try to stay neutral, I believe that this depends on the subject of the investigation and the extent to which being drawn to take a more active role in the interview dialogue can adversely affect the outcome. In this

study, I found that with interviewing tutors who it could be said were professionally closer to me, some of them sometimes assumed we shared a common understanding on certain issues about CA. Therefore these tutors did not seem to find it necessary to be more precise and clear about what they meant. For example, a tutor would say, "as you know CA is very useful for learning because it helps the students", without explaining clearly what it is they mean by useful. He seem to assume that we both shared a common understanding that CA was useful. Further probing by asking for clarification or sometimes 'challenging' this assumption occasionally revealed that the tutor was not exactly sure about how CA achieves this or that what was meant by usefulness was something other than, for example, learning-related. Thus, I discovered that sometimes I was inevitably drawn into participating more in the shaping of the issues of the interview through in-depth discussions. This made the interview interaction fruitful and meaningful and produced data that addressed in-depth, the focus of the research.

In summary, my conviction about interviewing as experienced in this study reflects a similar position of Platt (1981) who points out that:

"In the theory of interviewing it should be recognised that some interviews are as much like participant observation as they are like other interviews .... Whatever the style of the research, ... the greater the extent to which interviewer and interviewee already have some direct or indirect social (or professional) relationship independent of the research, the greater the likelihood that the roles of interviewer and interviewee will not be the only ones present" (p. 75, 85-86).

(ii)   The Challenge of Adapting the Interview

•   How does one adapt the interview method to the situations and status of

341

interviewees and still get data that addresses the focus of the research?

It became quite clear from the onset of interviewing subjects whom I had previous direct or indirect professional contact with, notably officials, that their interview role was going to be different. I did find that a more unstructured interview approach where the conversation was guided by topical issues somehow suited their status. However, at times it led to ethical dilemmas. This issue here has to do with "status differentials" (Platt, 1980) or more precisely in this study "power relations". I discovered that in interviewing higher ranking officials I needed to provide *more* justification for why I needed to interview them. As Platt (1981) points out, "it is difficult to do this without inviting discussion of the study rather than getting on with the interview..." (p. 80). On a couple of occasions some of them put me in the interviewee position by asking me to explain issues of interest to them about CA or teacher education. One official challenged the focus of my research and felt I should be concentrating on the issue of teaching practice instead, since she felt that was more a problem than CA. These situations raised ethical dilemmas which I dealt with by suggesting that we discuss them after the "formal" interview. When it occurred during the interview it was more difficult to manage as it seemed to affect cooperation by the interviewee to adopt the subordinate role of respondent.

There were two main disadvantages which emerged from interviewing officials. One was because of the relative freedom the unstructured interview approach offered, often some officials went on to interpret their own views and draw conclusions from them. In effect, what they were doing was analysing their own views. (Something, I felt was my task as a researcher). Secondly, they tended to introduce what I considered to be lengthy

342

irrelevant information that was not of much interest to my research focus. Transcribing the interview discourse for analysis was consequently laborious as it meant sifting through volumes of conversational data to gather information that was relevant to the focus of the research.

The perception that I had expert knowledge on the topic of discussion often seemed to make some tutor interviewees feel I was testing their competence or knowledge about CA. For example, when asked about the kinds of assessments they were using, these tutors included ones they had never tried before. Steps were taken in the research process to minimise the effect of these on the validity of the data used for the analysis. (see Chapter 5).

In summary, it is useful to adapt the interview method to reflect the status of interview subjects to derive maximum cooperation in addressing the issues. However by doing so, this puts heavy demands on interviewing skills as the interviewer has to try to maintain control over the research agenda. Finally, having any direct or indirect professional relationship with the research subjects complicates the interview event and increases the threat to validity. Under such circumstances it is necessary to adopt measures to counteract any potential threat to the authenticity of the interview data. This is especially so when status differential could have an effect on the outcome of the interview or the interviewer is not an entirely anonymous person.

7.8   Issues for Further Research

7.8.1   Introduction

Throughout the research, issues surfaced that relate to the topic of the study and which demand separate research effort to understand them further. In this section the outstanding issues arising from the case study which requires further investigation are discussed. Some suggestions are made about strategies for researching these issues.

7.8.2   Examination practices and influences on Classroom Teaching and Learning in Ghana

One of the issues that repeatedly surfaced was the influence of examinations on teaching and learning in the case study colleges. As it was noted in Chapter 2, examinations played a big role in the development of formal education in Ghana and has remained an important part of educational experience since colonial times. The educational reforms of 1987 were the first major effort on a national scale to break from a tradition of dependence on examinations. The introduction of CA was meant to achieve this. However, as it has been shown in this study examinations still influence much of what goes on as teaching and learning in the colleges.

Further research is needed to illuminate much more clearly the role of examinations in the Ghanaian school and the strategies which would be most effective in reducing their negative influence. Some of the questions such research may address are: What exactly is the nature of the examination culture in Ghanaian schools, which educational policies reinforce this culture of examinations, which aspects of this culture are desirable and which are not? In what specific ways do examinations influence teaching

344

and learning and how should curriculum and CA practices relate with examinations to make it serve a more professional function? These are some of the questions that require answers to guide the development of appropriate strategies to improve both examinations and CA and promote educational quality.

It is proposed that a case study approach is used as a first step in research into these issues. Clearer and in-depth understanding of the examination culture could provide insights into the formulation of policies that have the potential to improve both examination and CA practices.

7.8.3   Evaluation of the Teacher Training Curriculum in Ghana

There was no doubt, from the evidence of the study, that the content and structure of the curriculum in teacher training plays a big part in what is assessed and how it is assessed. For example, the separation of the teacher training curriculum into two components, subject content and methodology was a key determining factor in types of assessments tutors' used. The implication is that changes to assessment practice in the teacher training system has to be accompanied by changes in curriculum content and structure to reflect the philosophy of new assessment approaches. As Torrance (1995) rightly points out:

> "New approaches to assessment are certainly a necessary, but not sufficient mechanism for change within educational systems." (Torrance, 1995, p.56)

As a start to improving assessment practice through reforms, it would be necessary to undertake a national evaluation of the curriculum of all teacher training systems in Ghana.

The information from this study can be used by policy planners to chart and build a teacher education curriculum and assessment system that will improve the quality of trained teachers. There are several issues that a national evaluation research of the teacher training curriculum may address, some of which would include the following:

(i)   What are the main inadequacies in the present teacher training curriculum?

(ii)   How should the content of teacher education be structured to promote more adequately the professional learning and development of students?

(iii) Regarding the status of teaching and learning it appears courses are loaded with information which the classroom teacher cannot use. In view of that, how much of the subject content is actually useful (or essential) as part of the teaching knowledge the beginning teacher requires? How should this be incorporated with methodology courses?

(iv)   What are the essential competencies a beginning teacher in Ghana needs? How should the teacher training curriculum be designed to reflect such competencies and what methods may be used to assess them?

(v)   Is there a gap between what is taught in methodology courses and what is practised in schools? If there is, what are the causes of this gap and how can it be bridged?

(vi)   What kind of training in assessment techniques is provided at the Education Departments of the Universities of Cape Coast and Winneba? Is the training in assessment techniques congruent with innovations and policies being introduced in the teacher training colleges?

The task of undertaking an evaluation research of the teacher training curriculum will be enormous. However, this should be made more feasible with the recent establishment of a research department within the teacher education division of the Ministry of Education. Educational researchers from the two teacher training Universities can serve as research advisors to develop a workable framework for such research.

7.8.4 Professional Support Systems for Continuing Teacher Development in Ghana

Another important area for future research is research into the kind of teacher support services that can be provided to meet the needs of teachers/tutors in the professional field. The current pace of educational reform makes the setting up of viable continuing teacher development structures even more critical. The key research issue here is: how can, for example, INSET agencies be set up to run more efficiently. Besides this it would be necessary to examine any weaknesses of the present teacher inspection system. What are teachers/tutors views and experiences of them? Do they find them satisfactory and if not why not? What relationships already exist within the professional teaching community that can be of advantage to setting up school-based training systems. In what context would teachers want professional assistance to operate (eg. through professional associations such as the Ghana Association of Science Teachers, GAST)? Teachers are the ones who are the targets of these support services and therefore are in the best position to explain which kind of support would be most useful to them and why.

The contention of this thesis is that, further research addressing these questions is needed to provide understanding into some of the problems of existing professional development support systems in Ghana. Findings could also serve as a guide for

developing and implementing future policy on in-service teacher education. The case study method might be the most suitable approach for this kind of research. Action research could also play a useful part in encouraging innovation and change in settings when this can also be monitored and evaluated.

7.8.5 Research into the Use of Assessment to Promote Professional Learning in Teacher Training

It was quite clear from the research evidence that the use of assessment information to promote learning is a problematic one. Most case study tutors were clearly not knowledgeable or skilled in how to use assessment to integrate it with teaching to promote learning. As the literature discussion on the formative use of assessment in Chapter 4 suggests, this is not a simple and straightforward task, as is often implied.

The conception of formative assessment that was considered by this thesis to be most suitable for teacher development is one in which students progressively develop the ability to "monitor the quality of their own work during actual production" (Sadler, 1989, p. 119; see also Chapter 4). By developing strategies which they can draw upon to modify or improve their work, students would have taken the important step towards developing skills of reflective practice. The research evidence shows that tutors' interpretation and application of assessment is far from this ideal. However how structured assessment procedures can in practice be made to blend with instruction and the learning process to move students' towards this level of formative assessment is not clear. From the point of view of this thesis, this calls for research which examines how various assessment techniques can blend with teaching to promote, in particular, student

teachers professional learning. It is important that among other things such research considers the following:

(i)   What kinds of assessments are particularly useful for promoting formative learning in a teacher training context;

(ii)   How do students approach the group assignment - what kinds of behaviour do they exhibit in tackling group work and what conditions promote such behaviour? How could the group task be structured to provide greater opportunity for single and collaborative work effort? It should be pointed out here that most case study tutors had abandoned the use of group work mainly because of uncertainties about which student contributed what to achieve the group product. Also, in what ways can the tutor use assessment to create a framework within which to promote desirable learning strategies in students?

Many of these issues may be tackled through Action Research where certain assessment procedures can be developed, applied and evaluated as part of a teaching and learning process. The value in this process of research, in particular for the issues outlined above, is that it will consider the circumstances and conditions under which tutors have to apply such assessments.

7.9 Summary of the Main Issues from the Research

This chapter has presented a summary of the main findings of the research highlighting some of the factors which have impeded the effectiveness of using CA in the teacher training context in Ghana. The findings raised the need for the teacher training establishment in Ghana to address these limiting factors, especially the following: the high student-tutor ratio in training colleges if assessment is to be practised effectively and organisation of zonal INSET workshops geared towards developing a socially constructed consensus among tutors about effective CA practice which can form the platform for moderation. The study also highlighted the need for local authority within the colleges to be more involved professionally with what tutors were doing regarding CA. This was clearly missing in all the case study colleges and could be blamed on the lack of orientation to this task.

The study has also extended the discussion of the findings to the process of educational change and what the key factors to the change process were, regarding the implementation of the CA policy in teacher training colleges in Ghana. The findings suggested that the problems that faced the effective use of CA was not simply that tutors did not see the need for CA in teacher training, or that they were opposed to it, but rather it reflected a complex mix of issues such as:

- considerations rooted in the values and beliefs of tutors about assessment which define their assessment culture and agenda,

- poor operational conditions and structural limitations in the colleges,

- a lack of internal and external support systems which can help to promote and

facilitate the effective use of assessment especially for the professional development of students and,

- inadequacies in the present policy of CA for teacher training, especially in promoting professional learning as a formative and developmental process.

Some suggestions about how these limitations could be improved have been made, especially in the restructuring of INSET to improve the professional and assessment competence of tutors. The research noted that in future, educational innovations being introduced into PSTT should extend to or begin with the two Universities where tutors are trained for the training colleges. There is little chance of reforms in post-secondary teacher training in Ghana succeeding if the tutors who are to implement and develop that which is being introduced have not had long and sustained exposure to the changes.

At one meeting with some key policy planners of teacher education in Ghana, during fieldwork, I was asked a question which I believe is probably at the root of concerns about CA in the teacher training colleges. The question was: "Do you really think this CA can work or should we seriously think of radically restructuring it?" At the time I was asked this question it was difficult to give a fair and reasonable answer because I was still grappling with the issues that were emerging from the fieldwork. However having come to the end of the study and reflecting on all the relevant issues, it seems to me that the issue is not whether as an assessment scheme it can work. Instead it is whether CA has been properly *conceptualised in the context of teacher training* and the problems it might face in that context properly understood. Also, it is whether what is meant by radical restructuring is simply tinkering with the guidelines for administering it.

I believe that if the recommendations made in this chapter are adopted and if steps are taken to minimize the critical factors limiting its effective use in the colleges, CA should stand a good chance of making a positive impact on the quality of initial teacher training in Ghana.

REFERENCES

Ackerman, T. A. (1991) 'A didactic explanation of item bias, item impact and item validity from a multidimensional perspective. *Journal of Educational Measurement*, 29(1) 67-91.

Adam, R. S. and Chen, D. (1981) The Process of Educational Innovation: An International Perspective, London: Kogan, UNESCO Press.

Addae-Mensah, I., Djangmah, J., and Agbenyega, C. (1973). Family Background and Educational Opportunities in Ghana, University of Ghana, Legon

Agyeman, D. K. (1991) 'Training in Educational Research' *Journal of the Institute of Education*, 2(1), University of Cape Coast.

Akplu, H. (1992) 'Continuous Assessment in Schools and Colleges' *Journal of the Institute of Education*, 2(3), University of Cape Coast.

Akplu, H. (1989) 'Implementation of Continuous Assessment in Teacher Training Colleges' Unpublished Paper, University of Cape Coast.

Akwesi, C. K. (1994) 'Teacher Assessment in the Early Years of Secondary Schooling in Ghana and the United Kingdom. Unpublished Ph.D Thesis, University of Nottingham

Akyeampong, A. K. and Murphy, R. (1997) 'Beyond Numbers: Extending the Scope of Educational Research through Qualitative Method', *Journal of the Institute of Education*, 3(4) p. 4-13 University of Cape Coast

Akyeampong, A. K. and Murphy, R. (1996) 'Introducing Continuous Assessment: Challenges and Changes', *Mauritius Examination Syndicate Quarterly Bulletin*, Autumn.

Ali, A. and Akubue, A. (1988) 'Nigeria Primary Schools Compliance with Nigeria National Policy on Education: An Evaluation of Continuous Assessment Practices' *Education Review*, 12(2), p. 625-37.

Amedahe, F. K. (1994) 'Attitudes of Basic Education Teachers towards the use of Continuous Assessment in Ghana' *Journal of the Institute of Education*, University of Cape Coast. Vol. 3 No. 1.

Awuku, K. A. (1986), 'Charting and Building a Teacher Education Curriculum', in: 'Report of the National Conference on Teacher Education and its Agencies in Ghana. Institute of Education University of Cape Coast Publication.

Bangert-Drowns, R. L., Kulik, C. C., Kulik, J. A. and Morgan M. T. (1991) 'The instructional effect of feedback in test-like events.' *Review of Educational Research*, 61, p. 213-238.

Beasdon, T. and Reiss, M. (1991) 'Profiling in Initial Teacher Training - A Pilot Study', Unpublished Paper, University of Cambridge, Department of Education

Becher, T. et al., (1980) *'Accountability in the Middle Years of Schooling'* Part 1 Report to SSRC, London.

Beeby, C. E. (1979) 'The Meaning of Evaluation in: *Current Issues in Education.* No. 4 Evaluation. Department of Education, Wellington.

BERA (1992) 'Reform of Initial Teacher Training'- Report of Task Group. *Research Intelligence* Spring, p. 16-21.

Biggs, J. (1996) 'Assessing Learning Quality: Reconciling Institutional, Staff and Educational Demands', *Assessment and Evaluation in Higher Education,* Vol.21, No. 1, p. 5-15.

Black, H. and Broadfoot, P. (1982) *Assessment in the Modern Classroom: Keeping Track of Teaching.* Routledge & Kegan Ltd.

Black, H. B. and Dockrell, W. B. (1980), Diagnostic Assessment in Secondary Schools', Edinburgh, *Scottish Council for Research in Education.*

Black, P. J. (1993) 'Formative and Summative Assessment by Teachers' *Studies in Science Education*, 21, p. 49 - 97.

Blanchard, J. (1993), 'A Critical Commentary on the BERA Policy Task Group's Article Assessment and the Improvement of Education' *The Curriculum Journal,* 3(3) p. 215-30

Bogdan, R. and Biklen, S. (1992) *Qualitative Research for Education: An Introduction to Theory and Methods.* Boston, Mass, Allyn and Bacon.

Bol, L. and Strage, A., (1996), 'The Contradiction between Teachers Instructional Goals and their Assessment Practices in High School Biology Courses', *Science Education* 80 (2) , p. 145-163.

Bray, E. (1986) 'Profiling', in: Llyod Jones, R. & Bray, E. (Ed), *Assessment: From Principles to Action.* MacMillan Publishers.

Bridges, D., Elliott, J., Holly, M. L., Kroath, F. and McKee, A. (1995) *'Assessing Professional Competence in Teacher Education.'* BERA/ECER Conference, Bath.

Broadfoot, P. (1996) *Education, Assessment and Society.* Open University Press. Buchkingham.

Broadfoot, P. (1995) 'Performance assessment in perspective: International trends and current English experience' in H. Torrance (Ed), Evaluating Authentic Assessment. Open University.

Broadfoot, P. (1994), 'Approaches to Quality Assurance and Control in Six Countries', in: Harlen, W. (Ed) *Enhancing Quality in Assessment*, BERA

Brown, M. (1989) 'Graded Assessment and Learning Hierarchies in Mathematics: An Alternate View', *British Educational Research Journal*, 15, p. 121-128:

Bryman A. (1988) *Quantity and Quality in Social Research.* London: Unwin Hyman.

Buchan, A. S. (1993) ' Policy into Practice: Internal Assessment at 16+: Standardisation and Moderation Procedures, *Educational Research* Vol. 35, No. 2, Summer, p. 171-179

Burgess, R. (1985) *Strategies of Educational Research: Qualitative Methods.* London: Falmer Press.

Butler, D. L. and Winne, P. H. (1995) 'Feedback and Self-Regulated Learning: A Theoretical Synthesis' *Review of Educational Research.* Fall, Vol.65, No. 3, p. 245-281.

Butler, D. L. (1994) From learning strategies to strategic learning: Promoting self-regulated learning by postsecondary students with learning disabilities. *Canadian Journal of Special Education*, 4, 69-101.

Calderhead, J. (1988) 'The Development of Knowledge Structures in Learning to Teach' in: Calderhead J. (Ed) *Teachers' Professional Learning.* p. 51-64: The Falmer Press.

Carr, D. (1993) 'Guidelines for Teacher Training: The Competency Model' *Scottish Educational Review*, 25 (1) p. 17-25.

Chansarkar, B. A. and Rautroy, U. (1981), 'How Relevant is Continuous Assessment? A Business Studies Experience' *Assessment and Evaluation in Higher Education*, Vol. 6, No. 1.

Commonwealth Secretariat (1973) *'Teacher Education in Ghana'* p. 219-231.

Cotterill, P. and Letherby, G. (1994). The "Person" in the Researcher. *Studies in Qualitative Methodology.* Vol. 4 p. 107-136. JAI Press Inc.

Cresswell, M. J. (1996) *'What are Examination Standards? The role of values in large scale assessment*, IAEA Conference. Beijing.

Cronbach, L. J. (1982) 'Issues in planning evaluations'. In: L. J. Cronbach, Designing Evaluations of Educational and Social Programs. Jossey-Bass, San Francisco.

Cronbach, L. (1988) 'Five Perspectives on Validity Argument', in Weiner, H. and Braun, H. (Eds) Princeton, NJ. *Test Validity*. Erlbaum.

Crooks, T. J. (1988) 'The Impact of Classroom Evaluation Practices on Students', *Review of Educational Research*, 58, 4.

Crooks, T. J., Kane, M .T., and Cohen, A. S. (1996) 'Threats to the Valid Use of Assessments' *Assessments in Education: Principles, Policy and Practice*. Vol. 3, No. 3. Carfax Publishing.

Darling-Hammond L. (1986) 'Teaching Knowledge: How do we test it? *American Educator*, 46, p. 18-21.

Darling-Hammond, L. (1994), 'Performance-Based Assessment and Educational Equity' *Harvard Educational Review*, Vol. 64, No. 1 p. 5-27.

Daugherty, R. (1994) 'Quality Assurance, Teacher Assessments and Public Examinations, in: Harlen, W. (Ed) *Enhancing Quality in Assessment*, BERA Paul Chapman Publishing Ltd.

Delandshere, G. (1994) 'The Assessment of Teachers in the United States' *Assessment in Education: Principles, Policy and Practice*. Vol. 1, No. 1 Carfax Publishing.

Denzin, N. and Lincoln, Y (Eds) (1994) *Handbook of Qualitative Research*, London: SAGE Publications.

DFE (1992) Circular 9/92 Initial Teacher Training (Secondary Phase) London.

DFE (1993) *'The Government's Proposal for the Reform of Initial Teacher Training*, London.

Dixon, R. and Rawlings, G. (1987) 'Experiences with Continuous Assessment', *Assessment and Evaluation in Higher Education*. 12, 1, p. 24-26.

Dwyer, C. A. (1990), 'Trends in the assessment of teaching and learning: Educational Methodological Issues' in: Broadfoot, P., Murphy, R & Torrance, H. *Changing Educational Assessment: International Perspectives and Trends*. London Routledge.

Eisemon, T. (1990) 'Examination Policies to Strengthen Primary Schooling in African Countries' *International Journal of Educational Development*, 10, p. 69-82.

Elliot, J. (1995) What is good Action Research? Some Criteria. *Action Researcher*. No. 2 Hyde Publications.

Elwood, J. (1995) 'Undermining Gender Stereotypes: Examination and Coursework Performance in the UK at 16. *Assessment in Education: Principles, Policy and Practice*. Vol. 2, No. 3, Carfax Publishing.

Entwistle, N. (1985) 'Learning from the Experience of Studying', in: Francis, H. (Ed) *Learning to Teach Psychology in Teacher Training.* The Falmer Press.

Fairbairn, D. J. (1988) 'Pupil Profiling: New Approaches to Recording and Reporting Achievement in: Murphy, R. and Torrance, H. (1988), *The Changing Face of Educational Assessment*, Open University Press, p. 35-66

Fairbrother, R. (1995) *Formative Assessment: The Pupil's Role*, ECER Bath

Fetterman, D. M. (1988). *Qualitative approaches to Evaluation in Education: The Silent Scientific Revolution.* New York: Praeger.

Foster, P. (1965) *Education and Social Change in Ghana.* London, Cassell

Frederiksen, J. and Collins, A. (1989) 'A Systems Approach to Educational Testing', *Educational Researcher*, 18,9, p. 27 -32

Fullan, M. & Stiegelbauer, S. (1991) The New Meaning of Educational Change (2nd Edition) London, Cassell

Fullan, M. (1982), Research into Educational Innovation, in: Gray H. L. (Ed) The Management of Educational Institutions - Theory, Research & Consultancy. Curriculum Series, The Falmer Press.

Fullan, M. (1992), *The New Meaning of Educational Change.* London, Cassell

Fuller, B. and Heyneman, S. P. (1989) 'Third World School Quality: Current Collapse, Future Potential.' *Educational Researcher*, 18, p. 12-19.

Gardner, P. (1994) 'Review Symposium' *Assessment in Education: Principles, Policy and Practice*, Vol.1, No. 1, p. 121-127.

Geertz, C. (1973). Thick description: Toward an interpretive theory of culture. In C. Geertz, *The interpretation of cultures.* New York: Basic Books.

Ghana Education Service, Teacher Education Division, (1992) 'General Guidelines for Administering Continuous Assessment in Post-Secondary Teacher Education Institutions', Accra

Ghana Ministry of Education (1974a) *The New Structure and Content of Education for Ghana*. Accra, Ghana Publishing Corporation.

Ghana Ministry of Education (1993) Report of the Education Commission on Teacher Education, Accra

Ghana Ministry of Education (1995) *Basic Education Sector Assessment School Review: Curriculum, Instruction and Teachers - Report on Teacher Training Colleges*, June.

Ghana Ministry of Education and Culture, (1988), 'Final Report of the Sub-Committee on Assessment at Basic Education Level'

Ghana Ministry of Education (1993) *'Report of the Education Commission on Teacher Education'*, Accra. Ghana Publishing Ltd.

Ghana, Ministry of Education and Culture (1987) The School Reform Programme, Accra, Ghana Publishing Corporation

Ghana Ministry of Education, (1974b) 'Dzobo Committee Report' Accra, Ghana Publishing Corporation.

Ghana Ministry of Education, (1996) 48th Annual New Year School - Report on Seminar: Educational Reforms and Teacher Education.

Ghana National Association of Teachers (GNAT) Bulletin (1997), *'Special Update on FCUBE Programme'* Vol. 1.

Gipps, C. (1994a) *Beyond Testing: Towards a Theory of Educational Assessment*, Lewes: Falmer Press.

Gipps, C. (1994b) 'Quality in Teacher Assessment' in: Harlen, W. (Ed) *Enhancing Quality in Assessment*. London: Chapman Publishing.

Glaser, B. G. and Strauss, A. L. (1967) *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Glaser, R. (1990), 'Towards New Models for Assessment', *International Journal of Educational Research*, 14, 5, p. 475-83

Greene, J. C. (1994) 'Qualitative Program Evaluation', in: Denzin, N. and Lincoln, Y. (Eds) *Handbook of Qualitative Research*, SAGE, London.

Greenland, J. (1983), *In-service Training of Primary Teachers in Africa*, MacMillan Publishers.

Griffiths M., & Parker-Jenkins, M. (1994) 'Methodological and Ethical Dilemmas in International Research: School Attendance and Gender in Ghana' *Oxford Review of Education*, Vol. 20, No. 4, p. 441-459.

Guba, E. and Lincoln Y (1981) *Effective evaluation: Improving the effectiveness of evaluation results through responsive naturalistic approaches.* San Francisco: Jossey-Bass.

Guba, E. G. and Lincoln, Y. S. (1988) 'Do Inquiry Paradigms Imply Inquiry Methodologies?' in: Fetterman, D. (Ed) *Qualitative Approaches to Evaluation in Education: The Silent Scientific Revolution.* New York, Praeger.

Guba, E. and Lincoln, Y. (1994), 'Competing Paradigms in Qualitative Research' in: Denzin, N. and Lincoln, Y. (Eds) (1994) *Handbook of Qualitative Research.* London: SAGE Publications.

Haertel, E. (1991) 'New Forms of Teacher Assessment', *Review of Research in Education*, 17, p. 3-29

Haertel, E. (1992) 'Performance Measurement' in Alkin, M. (Ed) *Encyclopedia of Educational Research* (6th Edition), London, MacMillan Publishing

Hammersley, M. and Atkinson, P. (1993). *Ethnography: Principles in Practice.* Routledge.

Haney, W., Madaus, G. and Kreitzer, A. (1987), 'Charms Talismanic: Testing Teachers for the Improvement of American Education' *Review of Research in Education* (14) p. 169-230.

Hargreaves, A. (1988) 'The Rhetoric of School-Centred Innovation' in: R. Murphy & H. Torrance (Eds) *Evaluating Education: Issues and Methods.* Open University

Harlen, W., Gipps, C., Broadfoot, P. and Nuttall, D. (1992) 'Assessment and the Improvement of Education', *The Curriculum Journal*, 3(3).

Harlen, W. (1976) Assessing Progress by Teachers for Teachers, *Forum*, Summer, Vol. 18, No. 3 p. 82-84.

Harlen W. (1994) *Enhancing Quality in Assessment*, BERA Policy Task Group on Assessment. Paul Chapman Publishers.

Harlen, W., Gipps, C., Broadfoot, P. and Nuttall, D. (1992) 'Assessment and the Improvement of Education' *The Curriculum Journal*, 3, 3,

Havelock, R. & Huberman, A. (1977) *Solving Educational Problems: The theory and reality of innovation in developing countries.* Paris IBE/UNESCO

Hewitt, R. (1991) GCSE Oral Communication Assessment and Inter-Ethnic variation - A Report to the ESRC. London: Social Science Research Unit, University of London Institute of Education.

Heyneman, S. P. (1987) 'Uses of Examinations in Developing Countries: Selection, Research and Education Sector Management' *International Journal of Educational Development,* 7, p. 251-263.

Hitchcock, G. (1990) *Profiles and Profiling: A practical Introduction.* Longman Group Ltd.

Hitchcock, G. and Hughes, D. (1992) *Research and the Teacher: A Qualitative Introduction to School-Based Research,* London: Routledge.

Hoste, R. & Bloomfield, B., (1975) *Continuous Assessment in the CSE: Opinion and Practice,* Evans Methuen Educational.

Hughes, C. (1994) 'From Fieldnotes to Dissertation: Analysing the Stepfamily' in: Bryman, A. and Burgess, R. (Ed) *Analysing Qualitative Data.* Routledge.

Hyland, T. (1993) 'Professional Development and Competence-Based Education' *Educational Studies,* 19, p. 123-132.

Institute of Education University of Cape Coast, (1986) 'Report of the National Conference on Teacher Education and Its Agencies in Ghana, Published by the Institute of Education University of Cape Coast.

James, M. and Conner, C. (1993) Are reliability and validity achievable in National Curriculum Assessment? Some Observations on Moderation at Key Stage One in 1992, *The Curriculum Journal* 4(1).

Joyce, B. and Shower, B. (1980) 'Improving In-service Training: The Message of Research', *Educational Leadership,* 37(5) p. 379-385.

Kahn, M. J. (1990) 'Some Questions Concerning the Standards of External Examinations', *Studies in Educational Evaluation.* Vol 16. p. 513-27

Kellaghan, T. and Greaney, V. (1992) *Using Examinations to Improve Education: A Study in Fourteen African Countries* Washington D. C. World Bank Technical Paper No. 165. African Technical Department Series

Kellaghan, T. (1990) 'Examination Systems in Africa', in: Broadfoot, P., Murphy, R. and Torrance, H. (Eds) *Changing Educational Assessment: International Perspectives and Trends*, Routledge.

Kelly, M. J. (1986) *'An Overview of Education in Zambia'* Lusaka: University of Zambia.

King, R. (1976) 'Data on Student Performance under different forms of Assessment, *Assessment in Higher Education*, 2, 1, p. 31-34.

Klenowski, V. (1997) *'Portfolio Assessment in Teacher Education'* IAEA Conference, Durban South Africa.

Koranteng, S. (1995) *'Assessment in Mathematics for Certification of Primary Teachers in Training Colleges in Ghana in the 1980s and 1990s.* Med. Module. University of Leeds. (January).

Korthagen, F. A. J. (1988) 'The Influence of Learning Orientations on the Development of Reflective Teaching' in: Calderhead, J. (Ed) *Teachers' Professional Learning*. The Falmer Press.

Kulhavey, R. W. (1977) 'Feedback in Written Instruction', *Review of Educational Research*, 47, 1, p. 211-32.

Lehmann, R. H. (1990) Reliability and Generalizability of Ratings of Compositions, *Studies in Educational Evaluation*. Vol 16, p. 501-12.

Lewin, K. (1990)'Beyond the Fieldwork: Reflections on Research in Malaysia and Sri Lanka' in: Vulliamy et al., *Doing Educational Research in Developing Countries*. The Falmer Press

Lewin, K. (1993) *'Education and Development: The Issues and the Evidence'* ODA Serial No. 6.

Lincoln, Y. S. and Guba, E. G. (1985) *Naturalistic Inquiry*. Beverly Hills, CA: SAGE.

Linn, R. L. (1989) 'Current Perspectives and Future Directions', in Linn, R. L. (Ed) *Educational Measurement* (3rd Edition), London: Collier MacMillan 1-10.

Linn, R. L. (1994) Performance assessment: Policy, Principles and Technical Measurement Standards. *Educational Researcher*, 23, p. 4-14.

Linn, R. L.., Baker, E. and Dunbar, S. (1991) 'Complex Performance-Based Assessment: Expectations and Validation Criteria', *Educational Researcher*, 20, 8, p. 15- 21.

Little, A (1994) 'Types of Assessment and Interest in Learning: Variation in the South of England in the 1980s, *Assessment in Education: Principles, Policy and Practice*. Vol. 1 No. 2 Carfax Publishing.

Little, A. (1990) 'The Role of Assessment, Re-examined in International Context' in: Broadfoot, P., Murphy, R. and Torrance, H. (Eds) (1990) *Changing Educational Assessment: International Perspectives and Trends*. London: Routledge.

Macintosh H. G. (1976) Mode 3, *Forum*, Summer Vol 18, No. 3. p. 85-89.

Madaus, R. and Pullin, T. (1987) 'Teacher Certification Tests: Do they really measure what we need to know? PHI DELTA KAPPAN, 69, p. 31-38.

Maingay, P. (1988) 'Observation for Training, Development, or Assessment? in: Duff, T. (Ed) *Explorations in Teacher Training: Problems and Issues*, Longman.

Marshall, C. and Rossman, G. B. (1994). *Designing Qualitative Research*. SAGE Publications.

Marton, F. and Saljo, R. (1976) 'On the Qualitative Differences in Learning (II) - Outcome as a Function of Leaner's Conception of the Task', *British Journal of Educational Psychology*, 46, p. 115- 27.

Maykut, P. and Morehouse R. (1994), *Beginning Qualitative Research - A Philosophical and Practical Guide*. The Falmer Press, London, Washington D. C.

McCallum et al., (1995) 'National Curriculum assessment: emerging models of teacher assessment in the classroom' in: H. Torrance (Ed) *Evaluating Authentic Assessment*. Open University Press.

McCulloch, M. (1994). 'Teacher Competences and their assessment in Improving Initial Teacher Training? in: McCulloch, M. & Fidler (Eds) *New Roles for Teachers, Schools & Higher Education*. Longman

McNamara, D. (1992) 'The Reform of Teacher Education in England and Wales: Teacher Competence; Panacea or Rhetoric?' *Journal of Education for Teaching*. Vol. 18, No.3 p. 273 -284.

McWilliam, H. and Kwamena-Poh (1975) *The Development of Education in Ghana* (New Edition) Longman Group Ltd.

Messick, S. (1989) 'Meaning and Values in Test Validation: The Science and Ethics of Assessment', *Educational Researcher*, 18, 2, p. 5-11

Miles, M. B. & Huberman, M. A. (1994), *Qualitative Data Analysis - An Expanded Sourcebook* (2nd Edition) SAGE Publications.

Moon, B. and Mayes A. S. (1995) Integrating Values into the Assessment of Teachers in Initial Education and Training, in: Kerry, T. & Mayes, A. (Eds) *Issues in Mentoring*, London Routledge

Morris, P. (1985) 'Teachers' Perceptions of the barriers to the Implementation of a Pedagogic Innovation: A South East Asian Case Study' *International Review of Education*, 31, p. 3-18.

Moss, P. A. (1992) 'Shifting Conceptions of Validity in Educational Measurement: Implications for Performance Assessment', *Review of Educational Research*, 62,3, p. 229-58.

Munby, S. (1989) Assessing and Recording Achievement. Blackwell Ltd

Munn-Giddings, C. (1993) 'A different way of knowing: Social Care values, · Practitioner Research and Action Research'. *Educational Action Research*. Vol. 1 No. 2.

Murname, R. J. (1991), The Case for Performance-Based Licensing, *PHI DELTA KAPPAN*, October, p. 137-142

Murphy, R. and Joyes, G. (1996) 'Marks and Grades Aren't Necessarily Evil: A Response to Jan Nespor and Liz Barber' in: Watson, K. (Ed) *Educational Dilemma*. Cassell, London.

Murphy, R. J. L. (1991), 'The Moderation of Internal Assessments' *Journal of the Institute of Education,* University of Cape Coast. Vol. 2, No. 1, September, p. 1-5.

Murphy, R. and Torrance, H. (1988) *The Changing Face of Educational Assessment*, Open University Press.

Murphy, R., Mahaney, P., Jones, J & Calderhead, J. (1993) 'Profiling in Initial Teacher Training' *Teacher Development* p. 141-146

Murphy, R. J. L. (1987) 'Assessing a National Curriculum', *Journal of Education Policy* 2 (4) p. 317-23.

Murphy, R. J. L. (1982) 'Statistical Moderation - A Critique' in: Report of Seminar: *Combining Teacher Assessment with Examining Board Assessment.* Alderslot: AEB.

Newble, D. J. and Jaeger, K. (1983) 'The Effect of Assessments and Examinations on the Learning of Medical Students', *Medical Education*, 17, p. 25-31.

Nitko, A. J. (1995) 'Curriculum-Based Continuous Assessment: A Framework for Concepts, Procedures and Policy'. *Assessment in Education: Principles, Policy and Practice*. Vol. 2, No. 3 Carfax Publishing.

Njabili, A. (1987) *'Continuous Assessment: The Tanzanian Experience'* Paper Presented at a Seminar on Examination Reform for Human Resource Development, IDS, University of Sussex.

Noah, N. and Eckstein, M. (1990) 'Trade-offs in Examination Policies: An International Comparative Perspective, in: Broadfoot, P., Murphy, R. and Torrance, H. (Eds) (1990), *Changing Educational Assessment: International Perspectives and Trends*. London, Routledge.

Norris, N. (1993) 'The Trouble with Competence' *Cambridge Journal of Education* 21(3), p. 331-41.

Noss, R., Goldstein, H. and Hoyles, C. (1989) 'Graded Assessment and Learning Hierarchies in Mathematics, *British Educational Research Journal*. 15, p. 109-120.

Nuttall, D. (1987) 'The Validity of Assessments' European Journal of the Psychology of Education, in Murphy, R. and Broadfoot, P. (Eds) *Effective Assessment and the Improvement of Education* (1995). The Falmer Press.

Nwakoby, F. (1987) *The Educational Change Process in Nigeria: An Evaluation of the Junior Secondary School Innovation in Anambra State*, Unpublished D.Phil thesis, University of Sussex

O'Neil, M. (1995) 'Towards a model of the learner in higher education and some implications for teachers in fostering a high quality Learning', in: Smith, B. and Brown, S. (Eds) *Research, Teaching and Learning in Higher Education*. London: Kogan Page. p. 117-124.

ODA/British Council, JUSSTEP (1993) Impact Study, Ghana Education Service, Teacher Education Division, Accra.

Omolewa, M. A. (1982) 'Educational Assessment and its Reform: The Nigerian Experience' *International Journal of Educational Development*. Autumn 2, No. 2 p. 117 -126.

Opuni-Boachie, K. (1991) *'Certifying Science Teacher Trainees in Ghana: Does the Final Examination tell the whole story*. Med. Module. University of Leeds. (April).

Patton, M. Q. (1988) 'Paradigms and Pragmatism', in: Fetterman, D. (Ed) *Qualitative Approaches to Evaluation in Education: The Silent Scientific Revolution.* p. 116-137, New York: Praeger

Parlett, M. & Hamilton, D. (1987), 'Evaluation as Illumination: A New Approach to the Study of Innovatory Programmes' in: Murphy, R. & Torrance, H. (Eds) *Evaluating Education: Issues and Methods* . Paul Chapman Publishing Ltd.

Pecku, N. (1991) *'First Year of Continuous Assessment in the Central Region: An Evaluation'* Unpublished Paper, University of Cape Coast.

Pennycuick, D. (1990) 'The Introduction of Continuous Assessment Systems at Secondary School Level in Developing Countries' in: Broadfoot, P., Murphy, R. & Torrance, H. (Eds) *Changing Educational Assessment: International Perspectives and Trends,* London, Routledge

Platt, J. (1981) 'On interviewing one's peers'. *British Journal of Sociology,* Vol 32

Powney, J. and Watts, M. (1987) *Interviewing in Educational Research.* London, Routledge, Ltd.

Radnor, H. and Shaw, K., (1995) 'Developing a Collaborative Approach to Moderation' in: Torrance, H. (Ed) *Evaluating Authentic Assessment.* Open University Press.

Ramaprasad, A. (1983) 'On the definition of Feedback' *Behavioural Science* 28(1) p. 4-13.

Ramsden, P. (1992) *Learning to Teach in Higher Education.* Routledge.

Reynolds, A. (1992) 'What is Competent Beginning Teaching? A Review of the Literature', *Review of Educational Research.* Spring, Vol. 62, No.1 p. 1-35.

Richardson, E. (1965) 'Personal Relations and Formal Assessment in a Graduate Course in Education' in: *Education for Teaching.* May

Robson, C. (1993) *Real World Research: A Resource for Social Scientists Practitioners and Researchers.* Oxford, UK and Cambridge, MA: Blackwell.

Rogers, T. J. (1974) 'Coursework and Continuous Assessment' in: Macintosh, H. G. (Ed), *Techniques and Problems of Assessment.* Edward Arnold Publishers

Rowntree, D. (1987) *Assessing Students: How Shall We Know Them?* (2nd Edition) London: Kogan Press

Sadler, R. (1987) 'Specifying and Promulgating Achievement Standards', *Oxford Review of Education*, 13, 2.

Sadler, R. (1989) 'Formative Assessment and the Design of Instructional Systems', *Instructional Science*, 18, p. 119-144.

Satterly, D. (1994) 'Quality in External Assessment' in: Harlen, W. (Ed) *Enhancing Quality in Assessment*. Paul Chapman Publishers.

Schon, D. A. (1983) *The Reflective Practitioner*. London, Temple-Smith.

Schunk, D. (1985) Self-efficacy and Classroom learning. *Psychology in the Schools*, 22, 208-223.

Schunk, D. H. and Cox, P. D. (1986). Strategy training and attributional feedback with learning disabled students. *Journal of Educational Psychology*, 78, p.201-209.

Sebatane, E. (1985) 'Perspectives of Educational Assessment in Lesotho' *Educational Evaluation*, 11, p. 269-78

Shulman, L. S. (1987) Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review.*, 57, p. 1-22.

Shulman, L. S., & Sykes, G. (1986). *A national board for teaching? In search of a bold standard* (Paper prepared for the Task Force on Teaching as a Profession). Hyattsville, MD: Carnegie Forum on Education and the Economy.

Smith, J. K. (1989) *The Nature of Social and Educational Inquiry: Empiricism versus interpretation*. Norwood, NJ: Ablex.

Stake, R. E. (1991) 'Retrospective on the countenance of Educational Evaluation', in: McLaughlin, M. W. and Philips, D. C. (Eds) *Evaluation and Education: At Quarter Century*. Chicago: University of Chicago Press.

Stake, R. E. (1995) '*The Art of Case Study Research*', SAGE Publications. London.

Stake, R. (1994) 'Case Studies' in: Denzin, N. and Lincoln, Y. (Eds) *Handbook of Qualitative Research*. London: SAGE Publications.

Stein, M. K., Baxter, J. A., and Leinhardt, G. (1990) 'Subject Matter Knowledge and Elementary Instruction: A Case from functions and graphing' *American Educational Research Journal*. 27(4), 639-663.

Stephens, D. (1990) 'The Fieldwork Process in a Nigerian Cultural Context', in: Vulliamy, G., Lewin, K. and Stephens, D. (Eds) *Doing Educational Research in Developing Countries.* The Falmer Press.

Stones, E. (1994) 'Assessment of a Complex Skill: Improving Teacher Education. *Assessment in Education: Principles, Policy and Practice.* Vol. 1, No. 2 Carfax Publishing.

Strauss A. L. and Corbin, J. (1994) *Basics of Qualitative Research: Grounded Theory Procedures and Techniques.* Newbury Park.

Sutton, R. (1997), '*Assessment for Learning: How can we use assessment and feedback to maximise positive impact on the widest range of Learners?*', IAEA Conference, Durban, South Africa.

Synder, B. R. (1971) *The Hidden Curriculum.* New York Knopf.

Taylor, W. (1968) *Society and the Education of Teachers.* Faber & Faber.

Thomas, J. W., Bol, L., Warkentin, R. W., Wilson, M., Strage, A. and Rohwer, W. D. (1993) 'Interrelationships among students' study activities, self-concept of academic ability, and achievement in High School Biology Courses. *Applied Cognitive Psychology,* 7, p. 499-532.

Tickle, L. (1987) *Learning Teaching, Teaching Teaching - A Study of Partnership in Teacher Education,* The Falmer Press

Tomlinson, P. (1995) 'Can Competence Profiling Work for Effective Teacher Preparation? Part I: General Issues' *Oxford Review of Education,* Vol. 21, No. 2, p. 179-193.

Torrance, H. (1995), 'Teacher Involvement in New Approaches to Assessment' in: Torrance, H. (Ed) *Evaluating Authentic Assessment.* Open University. p. 45-56

Torrance, H. (1993), 'Formative Assessment: Some Theoretical Problems and Empirical Solutions. *Cambridge Journal of Education,* 23 (3), p. 333-343

Torrance, H. and Pryor J. (1995) 'Investigating Teacher Assessment in Infant Classrooms: Methodological Problems and Emerging Issues' *Assessment in Education: Principles, Policy and Practice.* Vol. 2, No. 3, Carfax Publishing.

Vulliamy, G. (1990) 'The Potential of Qualitative Educational Research: Strategies in Developing Countries' in: Vulliamy, G., Lewin, K. and Stephens, D. (Eds) *Doing Educational Research in Developing Countries.* The Falmer Press.

Watts, D. M. and Bentley, D. (1985) 'Methodological Congruity in Principle and Practice: A dilemma in Science Education' *Journal of Curriculum Studies.*

Webb, E. J. et al., (1966) *Unobtrusive Measures: Nonreactive Research in the Social Sciences.* Chicago, Rand McNally.

Wesdrop, H., Bauer, B. A. and Purves, A. (1982) 'Towards Conceptualisation of the Scoring of Written Composition.' *Evaluation in Education.* Vol. 5, p. 299-315.

Whitty, G. & Wilmott, E. (1991). 'Competence-based Teacher Education: Approaches and Issues', *Cambridge Journal of Education,* 21(3) p.309-318.

Whitty, G. (1994) 'The Uses of Competences in Teacher Education' in: Williams A., (Ed) Perspectives on Partnership - Secondary Initial Teacher Training. Falmer Press

Wiliam, D. and Black, P. (1995) *'Meaning and Consequences: A basis for distinguishing formative and summative functions of assessment'* ECER/BERA, Bath.

Wiliam, D. (1993) *'Reconceptualising Validity, Dependability and Reliability for National Curriculum Assessment,* Paper given at BERA Conference, Liverpool

Wiliam, D. (1992) 'Some Technical Issues in Assessment: A User's Guide, *British Journal of Curriculum and Assessment,* 2, 3, p. 11-20.

Wolf, D., Bixby, J., Glenn, J. and Gardner, H. (1991), 'To use their minds well: Investigating New Forms of Student Assessment' *Review of Research in Education,* 17, p. 31-74.

Wolf, R. M. (1987) The Nature of Educational Evaluation, *International Journal of Educational Research,* 11(1) 7-19.

Wood, R. (1986) 'The agenda for educational measurement' in: Nuttall, D. (Ed) *Assessing Educational Achievement,* London. The Falmer Press

Wood, R. (1987), *Measurement and Assessment in Education and Psychology,* London, The Falmer Press.

Wood, R. (1991) *Assessment and Testing: A Survey of Research.* Cambridge University Press

Yin, R. K. (1994) *Case Study Research: Design and Methods* (2nd Edition), SAGE Publishers.

APPENDIX 1:

DESCRIPTIVE PROFILE OF CASE STUDY COLLEGES

<u>WESLEY COLLEGE</u>

Wesley College is one of the oldest teacher training colleges in Ghana established in 1922 by the Methodist Church of Britain and the Gold Coast (now Ghana) to train ministers, catechists and teachers. It became purely a teacher training institution in the late 1940s by which time it had also become co-educational. The college, though under the jurisdiction of the Ministry of Education, has strong links with the Methodist Church in Ghana. The Principal who is a Methodist Minister is appointed with approval from the Church. Of the seven Mathematics tutors, three were Methodist Ministers who had pastoral responsibilities within and outside the college.

The college is in Kumasi, the second largest city in Ghana. Its city location, according to the Vice-Principal, makes it attractive to many aspiring teacher training students and consequently the college is able to select some of the best candidates applying for initial teacher training. As compared to the two other case study colleges, tutors had more experience of teaching at the teacher training college level and generally seemed more motivated to adapt to the changes being introduced into teacher training.

At the time of the first field research the college population stood at 667 residential students, of which 485 were men and 182 women. The staff strength of forty-one was spread over eleven subject departments. The overall staff student ratio calculated according to the total number of students in the college divided by the number of tutors was one is to sixteen. However, in the Science department each tutor had teaching responsibility for approximately 200 students and in Mathematics this was about 100. (The calculation involves dividing the total number of students studying Mathematics or

Science by the number of tutors in each department. It has to be pointed out that in all the three case study colleges there were fewer students offering Mathematics or Science in the third year of training as there are other elective subjects students can study. In the first two years of training both subjects are compulsory.) I was particularly interested to know why the college had seven Mathematics tutors when the other two colleges had fewer. It emerged that Mathematics was a particular problem area for students in the external examinations and to improve students' performance in the subject, more Mathematics tutors had been recruited.

Wesley College has a thriving sports culture which is an important part of its life. Evidence from interviews suggested that at times teaching, learning and assessment time had to compete with these 'essentials' of college experience. At the time of data collection, important sporting activities loomed ahead and this appeared greatly to have an effect on class attendance. The effect of such activities was explained by one of the tutors.

"... Two or three days before the zonal athletics competitions classes virtually come to a standstill ... the whole college gets busy with preparation. ... In fact, we can do very little meaningful work around this time and we lose a lot of teaching and assessment time, but here we take sports very seriously because it improves the image of the college."
(Tutor, Wesley College).

Classrooms in the college could seat around forty students with desks arranged in rows and columns all facing the chalkboard in traditional fashion. Though these desks are movable for group work activities, as one tutor pointed out, this hardly happens since most tutors taught using a didactic approach. There were no visual or teaching and learning aids in the classrooms. As in the other two case study colleges, the college had

a specially designated room for Mathematics group work activity and could hold about twenty students. Upon inspection of the room and subsequent discussions with tutors in the department it emerged that the room was rarely used for that purpose. Instead it served as a storage room for old unused Mathematics textbooks and teaching and learning materials produced by past students for assessment. There was no equipment in the room which students could use for Mathematics group work activity.

The college has one Science laboratory for practical work in Physics, Chemistry and Biology and could seat about fifty students. The equipment in the laboratory was visibly old and did not appear to have been used much. There was an impressive collection of scientific illustrative charts for science teaching but these were very dusty and looked in poor condition. According to the case study students very little use was made of them by tutors in teaching and experiments were rarely carried out in the laboratory. One Science tutor explained that the reason for the lack of practical work was the low stock of laboratory chemicals and equipment and the fact that, there were too many students for any meaningful laboratory work. Practical science activity when conducted was usually a demonstration by the tutor while students watched and made notes.

The college library was small judging by the student population and could seat about thirty students at a time. There was quite a sizable collection of new Science and Mathematics books donated by JUSSTEP. Students interviewed generally felt it contained the books and reference materials useful for their learning but that there were not enough of the relevant books to go round. I noticed that apart from the JUSSTEP books most of the other books were quite old and according to the Librarian, were rarely used.

Reflecting on the field experiences at Wesley College I felt that though the staff

were obviously overstretched, they were nevertheless conscientious, hard working and committed to their job.

AKROKERRI TRAINING COLLEGE

The college was founded as one of the Ghana Education Trust Institutions in 1962. The Ghana Education Trust was a scheme initiated by the then government to expand education by building new schools and colleges. The college records showed that it started with seventy male students and a teaching staff of four.

At the time of my first field work, student population stood at 609 of which 498 were men and 111 women. It had a staff strength of thirty-six spread over eleven subject departments. There were three Mathematics tutors but effectively only two taught because one was also the Vice-Principal whose official responsibilities made it difficult for him to teach regularly. The Science department was staffed with three tutors. The overall staff student ratio calculated according to the total number of students in the college divided by the number of tutors was 1 is to 17. However, at both the Science and Mathematics departments the tutor/student ratios were approximately 1 to 150 and 250 respectively.

Akrokerri Training College is situated far away from any major city or town and its location appears to present problems with securing more permanent staff. One tutor explained the problem:

> "*There is no big city or town around here, ... living here is difficult and if we have to shop we need to travel long distances, for example, to Kumasi. There are no businesses around and economically it is a difficult place to live. I cannot see myself staying here for too long ...*" (Tutor, Akrokerri Training College).

The Principal lamented that tutors posted to the college did not stay long enough and especially he found it difficult to recruit Science and Mathematics tutors who he felt preferred to be in the more urban colleges. It is important to point out that in Ghana because of low salaries most teachers prefer to work in urban schools where there is opportunity to do part-time teaching in nearby schools to supplement their income. Some of the case study tutors in the other two colleges were engaged in such part-time teaching in nearby schools or colleges. It was difficult for tutors in Akrokerri Training College to engage in such part-time teaching because of the distant location of the college.

Case study tutors at the college felt overstretched and appeared less motivated compared to the other two colleges and this reflected in their attitudes towards CA. They felt they could not be blamed for failing to comply with all the requirements of the CA scheme under their present working conditions and with little financial incentives to motivate them.

The classrooms in the college were spacious compared to the other two colleges and seated about fifty students. Desks in the classroom were arranged in the traditional rows and columns facing the chalkboard. As in the other colleges there were no visual, teaching/learning aids and storage facilities in the classrooms. The Mathematics activity room contained pieces of apparatus such as, chalkboard protractor/ruler, cuissinaire rods and multibase blocks for teaching number bases in Mathematics. Very few of these materials seem to be used by the tutors in their lessons. Interview and classroom evidence revealed that some tutors lacked training in the use of these materials and had little knowledge about how to organise Mathematics activity lessons using the teaching/learning aids.

There were two Science laboratories which looked adequately equipped and in

good condition but as interview results revealed these laboratories were rarely used for science practical work. At the time of the first fieldwork in the college I observed that the laboratory rooms were used for large class teaching.

The college had a small Library which could conveniently seat about twenty-five students. Apart from books supplied by JUSSTEP the collection of books was very old and were rarely used by students, as the Librarian pointed out.

Of the three case study colleges, Akrokerri Training College was the one in which tutors showed very little knowledge and appreciation of the professional value of CA. Tutors mostly talked about CA in terms of how it may be used to prepare students for the external examinations. However, these tutors had not had as much teaching experience at the training college level compared to the tutors in the other colleges and had not attended any INSET Courses related to the subject of CA. This, among other structural constraints perhaps, explains their lack of knowledge and interest in using CA for professional purposes.

PRESBYTERIAN TRAINING COLLEGE

Presbyterian Training College is situated about 30 kilometres north-east of Accra, the capital of Ghana. It was the first teacher training college in the country established by Basel Missionaries in 1848 with only five students. (See Chapter 2). It has strong associations with the Presbyterian Church of Ghana because of its historical link with that Church. The Principal of the college as tradition has it, is a Presbyterian Minister.

Student enrolment at the time of the first field research stood at 830 with 639 men and 191 women. The college was staffed with forty-two tutors resulting in a staff student ratio of approximately one tutor to twenty students. However, at both the Mathematics

and Science departments the ratio of staff/student was approximately one tutor for 250 students. (As in the other colleges, in the first two years all students have to study Mathematics and Science). There were three full-time Mathematics tutors; one was a British Volunteer Service Organisation (VSO) expatriate staff who was in his second year of service to the college. Of the two remaining tutors, one was also the Vice-Principal for academic affairs and therefore had a half-time teaching load.

The Science department had only three staff members but despite their heavy teaching workloads seemed quite motivated about their work and were more attuned with the philosophy of CA practices and positive in their comments about it. Later, I realised that this attitude had developed as a result of their involvement with early JUSSTEP reform activities in Science teacher education. I made a similar observation at Wesley College where two of the Science tutors had benefited from JUSSTEP workshop activities.
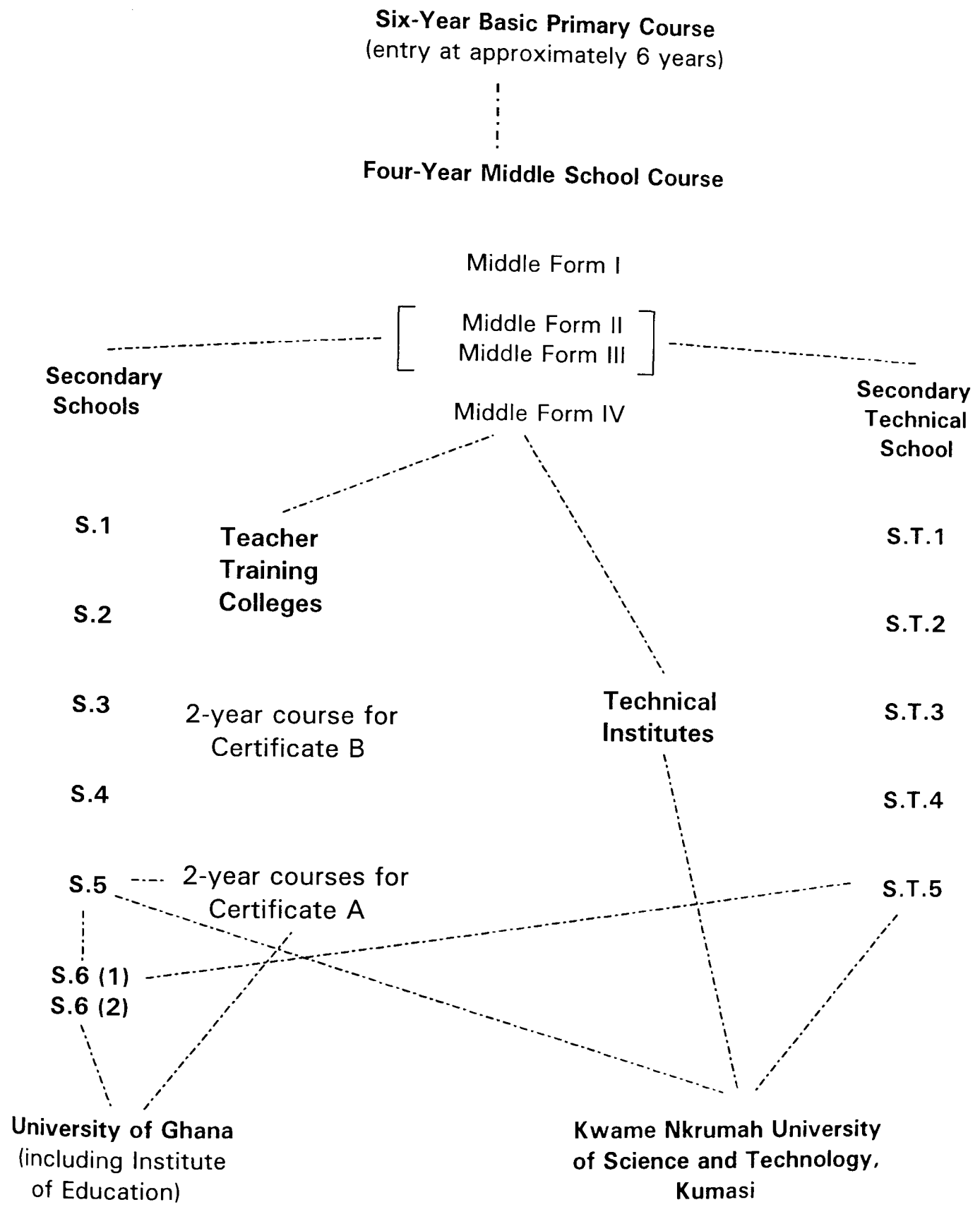
Classrooms in the college seated around 40 students but often had more students in them which would make it difficult for any attempt to reorganise the classroom for group work activity. Again as in the other colleges, seating arrangements followed the traditional rows and columns facing the chalkboard. There were no visual, instructional aids and storage facilities in the classrooms. The college's Mathematics activity room, of the three colleges, was the most impressive. The room could take about fifty students and had several mathematical apparatus, teaching/learning aids and a computer in an air-conditioned room. I was not too surprised about this because I was aware that the ODA subject advisor for Mathematics had been stationed in the college for at least a year and had left most of the materials and equipment. Interview and observation evidence suggested that the room had ceased to be functional. As I was shown around and

inspected items, the staff were sometimes surprised to find items hidden away in dusty boxes and confessed that they were seeing some of them for the first time. Tutors explained that the reason they did not use the room for group activity lessons was because the large student numbers they were teaching would make it practically difficult to manage.

There were two Science laboratories in the college which appeared in good condition and compared to the other two case study colleges looked to have more equipment and apparatus. There was also evidence that students had engaged in Science practical work although this was very few. It had the biggest library of the three colleges although as in the other two case study colleges most of the books were very old and rarely consulted by students. Books donated by JUSSTEP were the newest of the collection.

APPENDIX 2

Outline of the Old Structure of Education : Ghana

Six-Year Basic Primary Course
(entry at approximately 6 years)

Four-Year Middle School Course

Middle Form I

Middle Form II
Middle Form III

Secondary Schools

Middle Form IV

Secondary Technical School

S.1

Teacher Training Colleges

S.T.1

S.2

S.T.2

S.3

2-year course for Certificate B

Technical Institutes

S.T.3

S.4

S.T.4

S.5

2-year courses for Certificate A

S.T.5

S.6 (1)

S.6 (2)

University of Ghana
(including Institute of Education)

Kwame Nkrumah University of Science and Technology, Kumasi

(Based on the chart published in Ministry of Education reports)

ORGANISATIONAL CHART FOR THE
MANAGEMENT OF CONTINUOUS ASSESSMENT
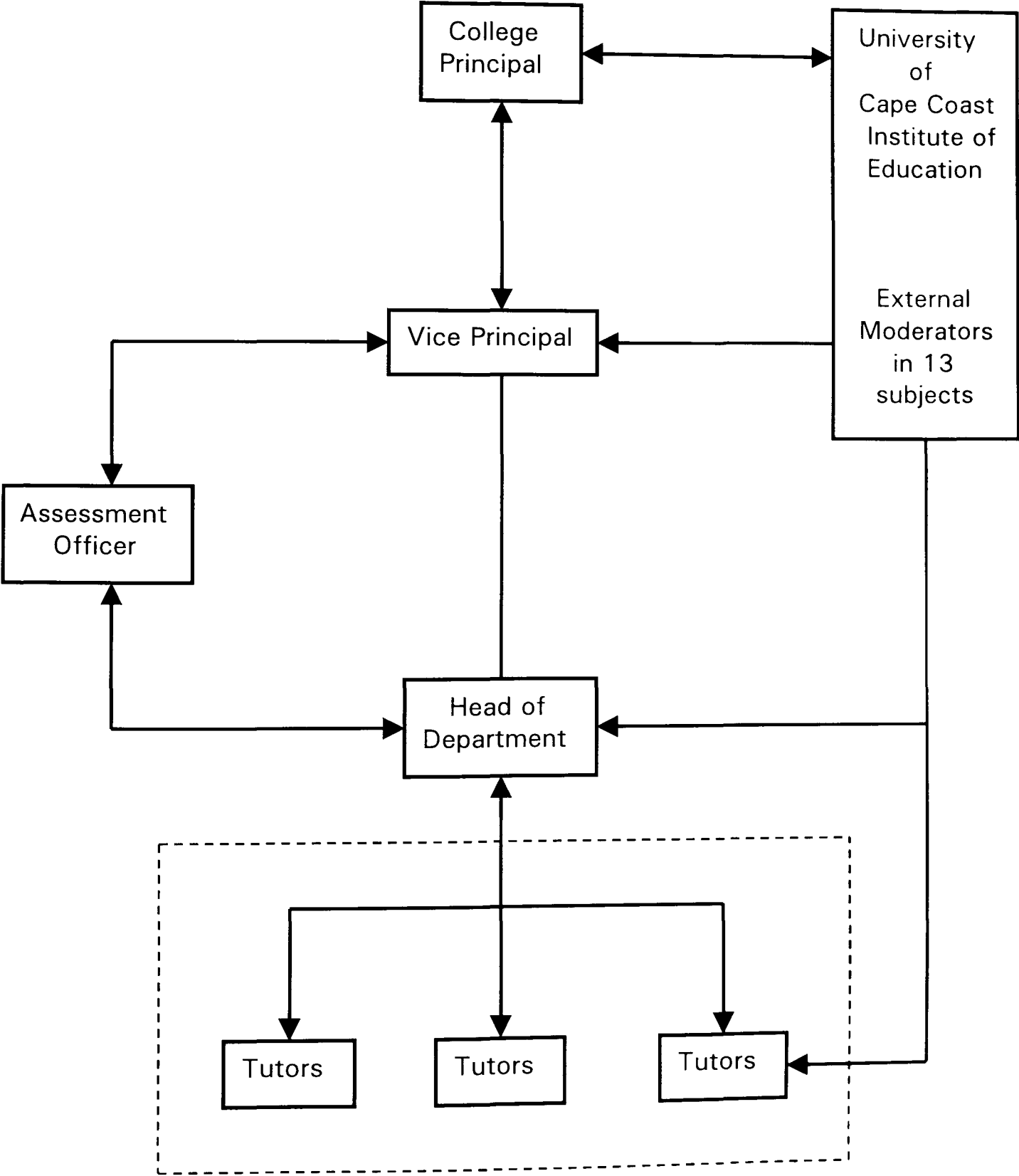
APPENDIX 4(A)

SPECIMEN INTERVIEW SCHEDULE FOR TUTORS

CONTINUOUS ASSESSMENT IN THREE-YEAR POST-SECONDARY TEACHER TRAINING IN GHANA

These questions were meant to initiate conversation on the issues under investigation. Other questions were asked during the interview to further discussion and clarification. Some of the questions were rephrased and used in the interview of Vice-Principals (e.g. questions under A, C, D & E)

A.   GENERAL VIEWS ABOUT THE INTRODUCTION OF CONTINUOUS ASSESSMENT INTO TEACHER TRAINING.

1.   (a)   Why do you think continuous assessment has been introduced in post-secondary teacher training in Ghana?

         (b)   What are some of the difficulties you have encountered with the continuous assessment system?

         (c)   How have you dealt with these difficulties?

         (d)   What are some of the opportunities the introduction of continuous assessment has brought into the teacher training system?

         (e)   What has been other tutor's attitude towards continuous assessment? (eg. level of commitment).
                What about students?

         (f)   Do you own a copy or have access to the general guidelines for administering continuous assessment in teacher training?
                What are you impressions about the general continuous assessment guideline document? (Do you use it to guide your assessment work? Why?)

B.   ACTUAL ASSESSMENT OF STUDENTS PERFORMANCE.

2.   (a)   What are some of the assessment tasks you have been giving your students?

         (b)   What has been the purpose of these assessments?

         (c)   Do you design assessments yourself?
                If not, What is the source? (eg. textbooks, past examination questions).

(d) At what stage(s) of teaching do you conduct assessment? (Are there any reasons for this?)

3. (a) Have you been able to combine continuous assessment with normal teaching? (If no, why? and if yes how?)

4. (a) How do you go about marking each piece of assessment task?

(b) Do you discuss with your students the criteria for assessing a piece of assessment task, for example homework assignments?
(If no, any particular reasons for not doing so?)

5. (a) Do students have the opportunity to assess some of their own work?

6. (a) Are you able to provide feedback to students after assessment? (How often is this feedback? How long after assessing them are you able to provide feedback?)

(b) What is the nature of this feedback? (eg. written comments, marks or individualised/group discussion of performance?)

(c) Are you able to use the information from continuous assessment to develop and plan teaching. (Why/How?)

C. MODERATION OF STUDENT'S WORK (i.e. TESTS, ASSIGNMENTS, PROJECTS ETC.)

7. (a) Within the department are there opportunities for students work to be reassessed by other colleagues?

(b) If there are, could you please explain what happens?

(c) How effective is this exercise?

(d) If not, why is there no such opportunity?

(e) Would you have liked to discuss other colleague's continuous assessment work as well as yours?

(f) Has there been any external monitoring of continuous assessment?

(g) If not, what effect (if any) do you think this has had on continuous assessment?

D. IN-SERVICE TRAINING IN CONTINUOUS ASSESSMENT

8. (a) Have you attended any INSET?
(Where others have attended INSET, have the outcome been communicated to you?)

   (b) (If yes) What was the subject of the INSET

   (c) Did you find this INSET helpful? (Could you explain why?)

   (d) Have you attended any INSET which specifically addressed the issue of continuous assessment?

   (e) How was it organised? (e.g. topics that were discussed, activities, workshops etc.)

   (f) How would you evaluate this INSET? (e.g. Did it address issues of concern to you?)

   (g) What suggestions, if any, can you make regarding the training of tutors in continuous assessment?

E. CHANGES AND IMPROVEMENTS

9. (a) What would you want to see changed or improved about continuous assessment in teacher training?

   (b) What suggestions, if any, can you make regarding improving teacher training in Ghana?

   (c) What role, in your opinion, should assessment play in this regard?

THANK YOU!

SPECIMEN INTERVIEW SCHEDULE FOR STUDENTS

**CONTINUOUS ASSESSMENT IN THREE-YEAR POST-SECONDARY
TEACHER TRAINING IN GHANA**

A. EXPERIENCES WITH CONTINUOUS ASSESSMENT

1.   (a)   In your opinion, why do you think continuous assessment was introduced
            into teacher training?

      (b)   Could you describe some of the assessment tasks you have had in
            Mathematics and Science?

      (c)   What have you <u>liked</u> about these assessment tasks?
            What have you <u>disliked</u> about them?
            (Could you please explain why?)

      (d)   What influence has continuous assessment had on your life as a student?

      (e)   How are you monitoring your progress on the teacher training course?

      (f)   Has continuous assessment contributed to promoting learning and
            improving your performance?

      (g)   (If yes), how has it contributed in this regard?
            (If no), why?

      (h)   Do tutors provide feedback about student performance in assessment?
            (How regular is the feedback?)

      (h)   What is the nature of this feedback? (Is the feedback helpful? How
            helpful?)

B. USES OF CONTINUOUS ASSESSMENT RESULTS

2.   (a)   What do you think tutors use the continuous assessment marks for?

      (b)   Are you satisfied that continuous assessment results provide tutors with
            adequate information about students progress and achievements?
            (If not, why?)

      (c)   What importance do you attach to continuous assessment results?

C.   IMPROVEMENTS AND CHANGES

3.   (a)   What would you like to see changed or improved about continuous assessment in teacher training?

THANK YOU!

SPECIMEN INTERVIEW SCHEDULE FOR OFFICIALS

CONTINUOUS ASSESSMENT IN THREE-YEAR POST-SECONDARY TEACHER TRAINING IN GHANA

As part of my research into continuous assessment practices in Post-Secondary Teacher Training in Ghana, I conducted in-depth interviews with students and tutors at three teacher training colleges. This occurred in the months of February and March of 1996. The evidence gathered formed part of my Ph.D work. I am extending this research to take account of the views and perceptions about continuous assessment from officials who have had some involvement or connection with the teacher training colleges. I shall, therefore, be grateful if you could share some of your views about the continuous assessment system in the teacher training colleges in Ghana.

(These questions were meant to initiate conversation on issues relevant to the focus of the study. During the interview other questions were asked to illuminate further the issues under discussion).

1. Why was continuous assessment introduced into post-secondary teacher training in Ghana?

2. What in your opinion, are the main problems facing the use of continuous assessment in the teacher training colleges in Ghana?

3. Are you happy with the policy of continuous assessment for the teacher training colleges? Why?

4. How would you evaluate the way in which continuous assessment is being practised in the teacher training colleges in Ghana?

5. What should be changed or improved about the present continuous assessment system in teacher training?

THANK YOU!

APPENDIX 5:

CONTINUOUS ASSESSMENT IN POST-SECONDARY TEACHER TRAINING IN GHANA

As part of my research into continuous assessment practices in Post-Secondary Teacher Training, I conducted in-depth interviews with students and tutors in three Teacher Training Institutions. This occurred during the months of February and March of 1996. The evidence collected formed part of my Ph.D work. From the evidence, I have come out with certain statements/hypothesis reflecting the views and opinions expressed by tutors and students. These statements are a matter of opinion.

I will very much appreciate it if you could take the time to look at these statements/hypothesis and express any views or opinions about whichever closely reflect or does not reflect your experience and, explain why.

Information from the interview will be treated with the utmost confidence.

Statements/Hypothesis:

1.   Assessment and Professional Teacher Development
1.1   The Institute of Education final exams has been a major source of influence on most continuous assessment work.
1.2   Students are more interested in the subject content than learning about methodology and practical teaching strategies.
1.3   Assessment of students' professional competence has not received sufficient attention in tutors' CA.

2.   Assessment, studying habits and instruction
2.0   Students appear to learn more when they write homework assignments than class tests, quizzes or term exams.
2.1   The introduction of continuous assessment has forced many students to spend time studying and proved a good tool for controlling student behaviour.
2.2   Most teaching on teacher training courses is done through lectures and note-taking and consequently assessment is mostly content-based and theoretical.

3.   Assessment approaches
3.1   Group assignment tasks have not become a major part of continuous assessment work because they do not provide very reliable information about students since students tend to copy.
3.2   Written tests, quizzes and classroom exercises are used more often than homework assignments.
3.3   To provide students with knowledge of assessment criteria before they do a piece of assignment will undermine the whole purpose of the assessment.
3.4   A major problem with homework assignments is that students copy from others

4. Recording and Use of continuous assessment results
4.1 Information from continuous assessment is of limited use in actual classroom teaching and learning.
4.2 Some students do not believe continuous assessment results count towards their final certification and therefore do not take it seriously.
4.3 The emphasis of the present continuous assessment is for marks and most effort in carrying out assessment is towards this end.
4.4 Integrating assessment into the routines of teaching is a task that has proved difficult to achieve.
4.5 The bulk of continuous assessment work is marking and recording of marks leaving little time for anything else.
4.6 The introduction of continuous assessment has not significantly helped to improve the quality of Post-Secondary teacher education.

5. INSET and Management of Continuous Assessment
5.1 Inservice training to improve tutors' competence in assessment has not been adequate.
5.2 When it comes to the management of continuous assessment, it is not clear what the function of the department is.
5.3 Recent workshops on continuous assessment have not dealt with issues that are relevant to the practice of continuous assessment.
5.4 New staff coming into training college have very little knowledge or understanding of the policy of CA and they are not given any orientation when they arrive at the college.

6. Recommendations/changes
6.1 Is there anything significant, which you think has been achieved by the introduction of continuous assessment into Post-Secondary teacher training?
6.2 What do you think is most lacking in the present assessment system?

THANK YOU FOR YOUR PARTICIPATING IN THIS RESEARCH