THE EFFECTS OF CONTINUING PROFESSIONAL DEVELOPMENT (CPD) THOUGH SPRINT ON TEACHER CLASSROOM PRACTICES AND STUDENT LEARNING OUTCOMES

By

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THESIS
M.ED
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2009
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A thesis submitted to the University of Zambia in partial fulfillment of the requirements for the award of the degree of Master of Education in Educational Administration

The University of Zambia
Lusaka
April, 2009

DECLARATION

I, Mbasilu Chileya Mazala, hereby declare that the thesis submitted for the award of the degree of Master of Education in Educational Administration by the University of Zambia is my own original work and has not previously been submitted to any other institution of higher education .I declare that all sources cited or quoted are indicated and acknowledged by means of a comprehensive list of references.

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CERTIFICATE OF APPROVAL

This dissertation of Mbasilu Chileya Mazala is approved as fulfilling part of the requirements for the award of the degree of Master of Education in Educational Adminstration by the University of Zambia.

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DEDICATION

I would like to dedicate this study to my husband Mathews for his financial and moral support,my children Bupe,Nyakatola,Malama and Bwalya and my nieces, Changu and Patuma, for enduring my absence from home while working on this thesis.

ACKNOWLEDGEMENTS

ABSTRACT

This study looked at the effects of Continuing Professional Development (CPD) through School Programmes for In -Service for the Term (SPRINT) on teacher classroom practices and student learning outcomes. The purpose of the study was to find out if SPRINT had any effect on teacher classroom practice and student learning outcomes.

The target population was all Ndola high schools. The sample consisted of 196 respondents that is, five head teachers, five deputy heads, fifteen heads of department, five School In- Service Providers (SIP), five Zone INSET Providers (ZIP) and twelve teachers from each of the five schools and one Resource Centre Coordinator. The sample also included one hundred grade twelve pupils, twenty randomly picked from each of the five schools Purposive sampling was used to select the schools, head teachers, heads of department, INSET providers and the subject coordinator. Teachers and pupils were selected using simple random sampling. Questionnaires, observations, interviews, Focus Group Discussions and documentary evidence were the research instruments used to gather information.

A review of relevant literature and its implication for CPD was undertaken to provide interrogation framework for this study. Guskey's five levels of evaluation were used to structure the framework

Data were analyzed by identifying and categorizing significant themes relevant to research objectives. The data were presented in form of tables, percentages, graphs and charts. Qualitative data from interviews were coded and emerging themes grouped into categories .The themes and categories of initial data were compared with those of subsequent interviews. Categories were then regrouped to get the most significant categories and themes.

The findings from this study indicated that teachers at all career stages expressed the desire to take part in Continuing Professional Development through SPRINT.

Research findings also showed that SPRINT activities did impact on teacher classroom practice basing on the twelve observable skills recommended by The Ministry of Education. The findings from this study further revealed that SPRINT had an impact on student learning outcomes as shown by the average scores of students whose teachers took part in CPD and those whose teachers did not. Average scores for the latter were lower than the former category of students.

The findings further revealed that although there was evidence of the effect of CPD through SPRINT on teacher classroom practices and student learning outcomes, this programme was hindered by weak organisational support.

The results of the study showed that teachers were not enthusiastic about continuing with the CPD programme as it lacked adequate funding and support from both local administrators and the Ministry of Education. Teachers were not involved in identifying training needs and as such did not feel they were the owners of CPD .Teachers also felt that this kind of CPD did not help in career progression as the credit system was not effective.

At organizational level, this study found that policies and guidelines on how to organize and manage CPD were lacking.CPD leaders also did not have adequate training to prepare them for their roles. Because of this lack of training, CPD leaders could not carry out assessment of the effects of CPD through SPRINT on teacher classroom practices and student learning outcomes.

On the basis of these findings, it is recommended that teachers should be in charge of their own CPD and be involved in needs assessment .Secondly, CPD leaders should be properly trained for their role and they should have clear job specifications. In addition, adequate funding for the programme should be made available by both the Government and the School Administration. The Ministry of Education also needs to formulate national policies and guidelines on management and evaluation of SPRINT .A standardized accreditation system which would enable teachers to experience career progression through SPRINT should also be put in place. Lastly, CPD through SPRINT should be made research based with teachers having access to INTERNET and good library facilities.

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1   Background

Traditionally, professional development has been dominated by a transmission or course-led model of how teachers learn. However, the extent to which this form of training has resulted in changes in classroom practice has not been measured. In-Service Education for Teachers (INSET) has relied upon teachers participating in courses delivered by external providers either at the school or at dedicated training centres.

A national survey carried out in England in 2000 (Harris & Busher, 2000) of INSET provision for subject leaders found that provision varied substantially in quality and availability and that there was limited evidence about the impact of CPD on teaching and learning. In the majority of cases INSET providers did not have robust mechanisms for evaluating the impact of CPD (Harris, 2001; Harris and Busher, 2000). The limitations of traditional forms of INSET point quite clearly to the need for a richer repertoire of professional development opportunities for teachers (Joyce and Showers, 1998). The most recent acknowledgement and endorsement of the need for a broader and diverse set of professional development opportunities can be found in the 'Learning and Teaching: A Strategy for Professional Development'(DFEE 2001). This is a comprehensive framework that signals a step change in conceptualising and realizing a richer repertoire of professional development for the duration of a teacher's career. The 'CPD Strategy' offers an important departure from traditional forms of INSET by giving teachers a range of opportunities for relevant, focused and collaborative approaches to professional learning.

The core aspiration for this strategy is to place professional development at the heart of school improvement and it offers a number of new initiatives to achieve

this particularly important goal. This richer mix of professional development opportunities will allow teachers to focus upon their own learning, career and promotion ambitions and to consider new responsibilities within their own school context. The assumption is that this will lead to an improved and enhanced sense of professionalism for teachers and an increased motivation to stay within the profession.

1.2   Definition of Continuing Professional Development (CPD)

Continuing Professional Development (CPD) is widely acknowledged to be of great importance in the life of schools. It contributes to professional and personal development for staff and to improvement in teaching and learning. CPD is defined as

..all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school, which contribute, through these, to the quality of education in the classroom(Day 1999).

1.3   Development of school based CPD in Zambia

Current policies of the Zambian Government place great emphasis on improving the quality of teaching and learning. On page 115 of the policy document 'Educating Our Future' we read that 'The foundation laid in the Initial Teacher Education (ITE), may be sound and adequate for a start, but it is insufficient for an entire professional life as a teacher'. The Ministry of Education, therefore, attaches great importance to the Continuing Professional Development of teachers, a process which begins when the student enters the College of Education and continues throughout his/her professional life as a teacher. It further believes that the best people to identify the professional needs of the teacher are the teachers themselves and that the most effective Continuing Professional Development site is the school itself.

Several recent initiatives have been designed to stimulate the demand for and, therefore, promote appropriate supply of professional development opportunities to secure improvement in teaching quality. In the early 1980s the Ministry of Education established a school- based INSET network which unfortunately had no organisational structure to coordinate INSET activities in schools. To address this problem, the Ministry of Education, with the help of the Swedish government commissioned an educational project called Self Help Action Plan for Education (SHAPE) It tried to implement the school- based INSET policy but was just limited to primary schools. In 1994, the Ministry of Education initiated a project called Action to Improve English, Mathematics and Science (AIEMS).This was designed to improve the quality of education through a sustainable decentralized system of INSET for teachers in the primary and secondary school sectors. The project stressed the role of the Teachers' Resource Centres as being instrumental in the decentralization of INSET.

Following reviews and evaluations of the project, it was found that despite all the inputs, the idea of CPD was not well received in the secondary sector because there was no system at the secondary school level that would be a vehicle through which all In-service activities would be relayed. In other words CPD was not institutionalized at secondary school level.

Having learnt lessons from AIEMS and other interventions, the Government has since developed a strategic plan which promotes the vision of the 1996 Education Policy. This plan places the recipients of CPD at the centre. Teachers with the support of head teachers are to be responsible for their own CPD through School Programme of In-Service for the Term (SPRINT).The thinking behind this new approach is that it is teachers themselves who know their own professional needs that should be responsible for developing interventions within the boundaries of the school itself and meet that need. High School SPRINT, therefore; represents the vehicle through which all school- based in-service training is delivered to teachers for their continuing professional development. It is believed that the High School SPRINT approach to CPD is

likely to have an immediate impact on both quality and results in high schools if supported by head teachers

1.4 CPD impact on academic performance/ achievement

The impact of CPD is rarely assessed over the long term, and is often based on self-reports by teachers of the CPD experience. The importance of ownership is reiterated throughout the CPD literature itself, rather than the outcome. Evaluation does not tend to differentiate between the different purposes of CPD, and take account of the intended outcome. An emphasis on the purpose of CPD before any activities take place may enhance the CPD experience, and improve both individual and school-level outcomes (Harland and Kinder, 1997; Muijs and Lindsay 2005). Muijs and Lindsay described an inter-relationship between teacher, pupil and school outcomes, and suggested that CPD can meet the needs of all of these, so long as there is an awareness of those needs throughout the CPD process. Smith (2002) suggested that evaluation should play an integral role in CPD, and will become part of a cycle: while it provides feedback on the success of the process, it can also help to determine further CPD needs.

The use of data, both quantitative and qualitative, is essential for teachers in terms of being easier to assess the impact of CPD on teachers than the impact of CPD on pupil's learning (Edmonds and Lee, 2002). Teachers appear to find it difficult to articulate definitions of CPD impact, discuss causal relationships between a change in practice and a change in pupil attainment, and describe whether CPD encouraged them to change their practice, or whether it was a desire to change their practice that encouraged them to participate in CPD in the first place (McAteer and and Schumacher 2005). It is rare to find hard evidence of pupil improvement resulting from CPD: numerous problems surround this area, and evaluations of CPD are often more subjective. In practice, it is often easier to consider the impact on teaching than on learning (Edmonds and Lee, 2002).

1.5 Purpose of the study

A greater awareness of the positive impact of CPD can increase teachers' enthusiasm to become more involved in the CPD process (Cordingley et al, 2005), so the communication of the impact of CPD is of crucial importance. The purpose of this study was to assess the impact of CPD through SPRINT on teacher classroom practices and student learning outcomes.

1.6 Statement of the Problem

Earlier reviews having indicated that CPD in high schools was not well received and implemented, there was need to assess the current CPD strategy in high schools. Therefore, this study sought to establish if CPD through SPRINT had been implemented effectively in high schools and what its effects on teacher classroom practices and student learning outcomes were. Coupled with this, the study aimed at providing research evidence and guidelines on the assessment of the impact of CPD through SPRINT that would be of value to practioners and policymakers.

1.7 Objectives of the study

The objectives of the study were to :
(i) determine teacher reaction and learning from CPD through SPRINT in High schools.
(ii) find out if the programme had organizational support.
(iii) determine the impact of SPRINT activities on teacher classroom practices.
(iv) find out if SPRINT activities improved student learning outcomes.

I.8 Research questions

The investigation wanted to find answers to the following questions
(i) What is the teachers' reaction to CPD through SPRINT in high Schools?
(ii) Has SPRINT gained Organisational support?
(iii) Has SPRINT improved teacher classroom practices?
(iv) Has SPRINT improved student learning outcomes?

1.9 Significance of the study

The findings of the study might reveal useful information for various stake holders. The practioners needed to know their role in the provision of CPD. The policy makers needed to know areas where policies had to be formulated to improve provision of CPD and researchers needed to know areas for further research to improve on the flaws of current CPD provision. It was, therefore, hoped that this study would both provide information on which informed decisions would be based and contribute to the growth of knowledge in this area.

1.10 Limitations of the study

The study was limited to Ndola urban high schools due to limited financial resources. The other limitation was that generalizations drawn from few selected schools could not be applied to all cases in the population. The difficulty also lay in selecting subjects that were representative or typical.

1.11 Abbreviations

AIEMS   Action to Improve English , Mathematics and Science
CPD   Continuing Professional Development
DODI   Demonstrate, Observe, Discuss and Implement
HOD   Head of Department
INSET   In -service Education for Teachers
SAA   Subject Association Activities
SBT   School Based Training
SMARC   Subject Meetings At Resource Centre
SIMON   School CPD Monitoring
SIP   School In-Service Provider
SPRINT School Programme for In-Service for the Term
TRC   Teacher Resource Centres
ZIP   Zone In-Service Provider

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Continuing Professional Development for teachers is considered a critical condition for maintaining and enhancing the quality of teaching and learning in schools (Craft 2000; Harland and Kinder 1997; Harris 2002).However, the concept of Continuing Professional Development (CPD) in education is often ill-defined, with the separate notions of formal training and on-the job learning serving to confuse the issue further. However, Day's (1999) definition of CPD encompasses all behaviours which are intended to effect change in the classroom. He states that,

> *Professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual group or school, which contribute, through these, to the quality of education in the classroom. It is the process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purpose of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good Professional thinking, planning and practice with children, young people and colleagues throughout each phase of their teaching live (Day, 1999, p.4).*

CPD has traditionally taken two approaches of workshops and cascade training. Both have been considered to be ineffective by teachers and researchers. According to researchers, effective CPD requires teachers to make decisions about their own professional development in their own schools, balancing subject and pedagogy, peer observation and feedback, action research and sharing results and opportunities for teachers to apply what they are learning in their own classrooms with outside assistance as needed.

This CPD approach has been widely implemented in Japan where it is known as Lesson Study and in China where it is referred to as Teacher Research Groups. This approach has also been tried in some developing countries. In Guinea for example, an attempt was made (1994 to 2003) to make primary school teachers full partners of their own CPD and school improvement. The Ministry of Education provided support for teams of teachers to design their own projects and to compete for funding and professional support. For accountability, the initiative was built on merit based competition, explicit expectations and relevant training .Internal and external evaluation, sharing information and transparency were also critical issues.

Evaluation carried out on CPD in Ghana indicated that The Education Office in Bongo District, after implementing school-based CPD, improved school performance of girls in Basic Certificate Examination. In Rwanda, evaluation of CPD indicated an increase of student classroom participation and student increase of interest in some subjects. In summary, the experience of Japan, China and progress made in developing countries are cause for optimistic view of school -based CPD.

Evidence also suggests that attention to teacher learning can impact directly upon improvements in student learning and achievement. Where teachers expand and develop their own teaching repertoires and are clear in their purposes, it is more likely that they will provide an increased range of learning opportunities for students (Joyce et al, 1998). The research literature demonstrates that professional development can have a positive impact on curriculum, pedagogy, as well as teachers' sense of commitment and their relationships with students (McLaughlin and Talbert,1994). Recent research has reiterated that the quality of professional interaction, the focus on staff development and the relentless pursuit of improved teaching and learning are key characteristics of successful school improvement (Gray,2000; Harris, 2002; Maden and Hillman, 1996; OFSTED 2000).

However, research also acknowledges that for CPD to impact on teacher performance and student learning outcomes, it has to be effective.

2.2 Effective CPD

Evidence incontrovertibly shows that engaging in effective CPD is critical to improving teaching quality. Particular approaches to CPD are more likely to be effective and result in changes in teaching and professional practice that positively impact on the learning, behaviour and achievement of all children .Successive reviews of research conducted over several years describe characteristics of effective approaches to CPD as:

- Having clear focus on pupil learning
- Involving teachers in identifying their needs
- Using coaching and mentoring
- Including observation, feedback and collaborative working
- Providing opportunities for practice, research and reflective practice; and
- Modeling preferred practice in classrooms

Guskey (1994), in reviewing research on professional development also highlights the following key considerations in planning effective CPD:

(i) Change is both an individual and organisational process. CPD needs to focus on the classroom level, but also needs to ensure that school culture and structures support the CPD effort

(ii) Plan large-scale change, but do so incrementally to minimise chances of failure

(iii) Work in teams to help alleviate the fear of change, but make sure that the teams are not too large, as the risk exists that too much time is wasted on meetings rather than action

(iv) Include procedures for feedback on results, especially information that the new method seems to be working, as change in affective attitudes often follows changes in outcomes that follow from changes in behaviour

(v) Provide continuing follow-up, support and pressure, especially during the early phases of implementation when most problems will be encountered. It

takes significant on the job practice and support if a new practice is to become habitual

(vi) Integrate programs with existing initiatives, to avoid innovation overload.

2.2.1 Training needs identification

As Guskey (1994) points out, however, effectiveness of professional development is context specific and over time there is need for an optimal mix of CPD experiences which take into account teachers' life stage and career development and school identified needs (Day, 1991).

Day says the key factor in ensuring effective CPD is matching appropriate professional development provision to particular professional needs. This 'fit' between the developmental needs of the teacher and the selected activity is critically important in ensuring that there is a positive impact at the school and classroom level (Hopkins and Harris 2001). Where staff development opportunities are poorly conceptualised, and are insensitive to the concerns of individual participants or make little effort to relate learning experiences to workplace conditions, they make little impact upon teachers or their pupils (Day, 1999). Although there have been claims that CPD needs to be linked to both individual and organisational goals if both individual and organisational change are to be achieved (Jones and Fear 1994), from the perspective of the definition of CPD in this study, it is clear that there will be regular occasions during the life cycle of organisations and at particular times of national reform when these needs will predominate, and times in individual teachers' career development when their needs must prevail. Needs assessment at both these levels is necessary (Day 1991).

In recognition of the above fact, the Ministry of Education(MOE) in Zambia, realized that having serving teachers going away to colleges was not serving the immediate need for quality daily lesson delivery in classroom by teachers.MOE (1996)states that

If Continuing Professional Development is to be a truly integral part of the professional life of a teacher, it has to be genuinely incorporated into the daily routine of the school so that at the end of the day it is part and parcel of the school Curriculum.

It further believes that the best people to identify the professional needs of the teachers are the teachers themselves and that the most effective CPD site is the school itself.

This realization came about after earlier interventions for CPD such as the AIEMS project failed to bear required results. The key persons in this project were subject Co-coordinators who were placed centrally at Provincial Teachers' Resource Centres. The other key player was the British Council who funded the project and supplied all Training Manuals and textbooks. After subsequent reviews and evaluation of the project it was found that though some success had been scored in terms of provision of textbooks and other materials for Mathematics, Science and English, it had limited impact. Possible reasons that were cited were that although the goal was to provide a decentralized system for teachers, influence to make binding decisions still lay with the subject coordinators at Resource Centres and the British Council. High school teachers felt no sense of ownership for the project since no structures were put in place at the schools to support the project. Because of these findings, another approach to CPD had to be put in place.

In an attempt to enhance the 1996 vision of Education Policy, the Government developed a strategic plan that placed the recipients of CPD at the centre through the School Programme of In-Service for the Term(SPRINT).At first, SPRINT was limited to lower and upper basic schools but was extended to high schools in 2005.

However, a Review done in 2005 and published in 2007 by The Ministry of Education on the operations of Resource Centres and activities of SPRINT in lower and middle basic schools reveals that SPRINT met a number of barriers. It observed that the duration of SPRINT activities was inadequate. The general observation from the study was that although valuable material was presented

during SPRINT workshop activities, there was inadequate provision made for sharing experiences to include every day situations that teachers encountered or might encounter. It was also found that INSET providers were not senior teachers and this occasionally led to conflicts with senior teachers. In addition, there was lack of follow up on the training workshop activities that were conducted. The intervals between workshops and follow-ups if done were too long making some teachers relapse to old ways. It was also noted that administration and coordination were done in a disorderly manner. Further more, some teachers had a negative attitude towards SPRINT activities that were conducted within the school because such activities did not include allowances for teachers. To sum it all, the programme lacked organisational support which is very important for any CPD to succeed. It was also noted at the beginning of this study that CPD activities did not include high schools in its evaluation of CPD through SPRINT as this had by then just started to be reemphasized in high schools.

A 2001 investigation on Support for CPD (Brown, Edmonds and Lee, 2001) identified a need to support school CPD, especially where it met the needs of the school. At the individual level, it was effective when teachers could choose and direct their own CPD. Many felt that CPD had an impact but found it difficult to assess the impact on learning. The biggest impact was increased confidence, increased self esteem and greater collaboration. The report concluded that there was need to develop systems to evaluate the short and long term impact in relation to standards, teaching and learning.

Research has further shown that in order to achieve improvements in teaching and better learning outcomes for students, teachers need to be engaged in professional development that promotes inquiry, creativity and innovation. Using peer coaching, mentoring, sabbaticals and other forms of sustained professional learning has been shown to have positively affected teaching and learning outcomes (Joyce, Calhoun et al. 1998; Little 1993)

In Thailand the office of the Education Council (OEC) which is a government agency responsible for educational policy and planning launched 4 projects on

teacher education between 1998 and 2003 to study effective training for development of in-service teachers. The results of the study revealed that School-Based Training (SBT) was a new paradigm to develop the teachers and the teaching profession in order to contribute to the success of the learning reform in Thailand. In- Service training was found to be effective when it was based on the real situations and the actual needs of both the school and the trainees.

CPD is increasingly seen, then, as a key part of the career development of all professionals which is a shared responsibility with their employers because it serves the interests of both

2.2.2 Target setting

After CPD needs have been identified it is vital to set goals and targets. According to Okafor(1988),teacher education at all levels must be effective and the first prerequisite for effectiveness of any organization is clarity of objectives. The Department for Education and Employment also says that target setting.'is a key tool for raising expectations and standards'.(Dfee, 2001).It leads to greater clarity and helps a school focus on pupil performance. Pupil performance targets, which schools must set from annual work plans, can provide firm measures against which progress can be judged by teachers, head teachers and governing bodies, and further improvements planned. A successful CPD programme, therefore, requires identifying what areas of a teacher's classroom practice are successful and what areas need improvement and then setting achievable targets through realistic action planning.

In general, there is plenty of guidance (DFES, 2005) about designing CPD around targeted student outcomes, but there was little evidence from reviewed literature about effect in this regard. Most of the evidence was in USA (Cordingley et al 2003)drawn from relatively small scale studies about particular CPD interventions.However,even from these studies, teachers seldom had hard evidence to quantify the effects of the changing practice of students

Foster (2006) reported an analysis of 177 questionnaire responses from CPD coordinators in primary and secondary schools. The research aimed to discover how the school CPD programme was planned, how it related to school and individual priorities, how the impact on teachers planning and and teaching practice was evaluated and what evaluation of pupil impact took place. The study revealed that what was more strategic was developing a broad approach to the collection and evaluation of a broad range of evidence. Foster also found that key factors distinguishing the most coherent practice from the rest was the level of planning for impact linked to identify needs and clearly articulated outcomes. Limitations of these studies are that they were not done in a Zambian context and there could be variables influencing such findings which are not found in Zambian schools.

Having realized the importance of target setting, The Ministry of Education puts emphasis on annual work plans and target setting in its guidelines for provision of CPD (MOE 2006).

2.2.3 Collaborative CPD

Apart from needs identification and target setting, Muji and Lindsay (2005) further identified the creation of a collective collaborative learning environment as a single most important factor for a successful school improvement ,reinforcing earlier findings (Cordingley et al,2003) in singling out collaboration as an important element for those seeking to enhance the effectiveness of learning and teaching.

Research evidence shows that many teachers are likely to be more comfortable discussing their practice with peers than with senior management, where issues surrounding performance management may hinder honest and open discussion (e.g. Kennedy, 2005) It has been argued that creating a collaborative professional learning environment for teachers is the 'single most important factor' for successful school improvement and 'the first order of business' for

those seeking to enhance the effectiveness of teaching and learning'. (Eastwood and Louis, 1992)

The benefits of collaborative CPD for teachers have been well documented. Collaboration is thought to have advantages over individual work, with sustained collaboration over the duration of around 3 months appearing to lead to greater teacher confidence, improved self efficacy (with teachers feeling that they are able to make a difference to pupils' learning), an openness to new ideas and changing practice, greater enthusiasm for collaborative working, including an increased willingness to be observed, and providing an opportunity for reassurance when teachers are faced with problems and issues of concern (Cordingley, et al, 2003, 2005a; Ross, et al, 1999).

The MOE attaches great importance to collaborative CPD.Apart from the fortnight meetings within the departments, the teachers are expected to share their classroom experiences with teachers teaching the same subject from other schools. The best time for sharing experiences is during the school holidays and the venue for such meetings will be a Teachers Resource Centre.All high schools in the clusters are Resource Centres. The subject coordinator facilitates the meetings but the teachers themselves determine the topic.

However, a research done by Mwale (2006) on the provision of Continuing Professional Development by Resource Centres in Zambia revealed that Resource Centres on which was placed the responsibility of promoting the collaboration of CPD activities were not effectively providing CPD activities among high school teachers. The findings further revealed that CPD activities in high schools were almost non existent using them as meeting places for CPD activities with Basic Schools. Generally; the findings indicated lack of commitment by both the coordinators at Resource Centres and school administrators. Research findings further revealed that little or no effort was given to school-based workshops and seminars. In addition, constant monitoring of CPD was not given prominence, hence the glaring lapses in actual implementation of CPD through SPRINT in high schools. The limitation of this

study was that it did not assess the impact that the CPD offered in high schools had on teacher classroom practices and student learning outcomes.

An earlier study done in England in 2005, comparing collaborative and individually oriented CPD, led by the National College for School Leadership, the Training and Development Agency for Schools and the Centre for Use of Research and Evidence in Education, synthesized evidence from 14 research studies. What emerges from the findings is that collaborative CPD is more likely than individual CPD to result in learning gains for pupils as well as teachers. (Cordingley et al, 2005)

Research has also recommended that the use of external expertise can result in the provision of knowledge and ideas, and be useful in terms of the external expert acting as a catalyst for and agent of change. Small schools in particular can benefit from bringing in outside expertise, to widen the pool of knowledge they can draw on. Teachers may need help in determining their own CPD focus, and how to access different types of support available. It may be that discussions of this type with people from outside the school could reduce anxieties about performance management issues. External support, particularly when it comes to delivery of CPD, should be pedagogically expert, and flexible enough to fit in with the varying demands of school life. Peer support and discussion can contribute towards the development and take-up of new practice, but sustained contact with any external parties who were involved in any initial input enables issues to be addressed as they arise, and can facilitate motivation, feedback, further discussion and progression (Cordingley et al, 2003; Ross et al, 1999).

Having realized the importance of external expertise, the Ministry of Education in Zambia requires that subject Coordinators visit each school in the cluster twice in a term. The subject coordinator spends a full day in the school on each visit and as such each visit needs to be carefully planned. The second visit assess the impact of an initiated change.However,as indicated earlier ,research findings have shown that monitoring and evaluation of CPD in Zambia has not been given its due importance.

2.2.4   Evaluation of CPD

One of the most striking findings from the growing school improvement research base is that improving schools are marked by a constant interchange of professional dialogue at both formal and informal levels. Similarly, schools that are improving invest in professional development and are able to sustain the energy of staff in various forms of professional learning.

Consequently, it would seem imperative that schools adopt evaluative approaches to CPD that not only accurately gauge learning outcomes at organizational, teacher and student levels but that also accurately assesses professional learning needs. At present, such evaluation mechanisms do not appear to be in place with respect to most CPD, evaluation usually being limited to simple satisfaction checklists. Many evaluative approaches are needed that have the potential to give meaningful formative and summative feedback to schools and teachers. These need to be adapted to the aims and goals of CPD.Knight (2002) observes that,

> Evaluation at its best will provide not just an overview of whether CPD itself has been successful, but will also have strong positive learning benefits to teachers in the school .Good evaluation is built in from the outset of the professional development programme or activity not added on at the end.

Without these evaluative approaches, gauging the relative effectiveness of different forms of CPD will remain elusive.Clare, (1976), states that,

> Evaluation is as basic to professional development as it is to education. Unfortunately, as is so often the case in education, systematic evaluations of professional development programmes are rarely undertaken. ... Millions of dollars have been provided in the name of faculty professional development, but the quality of these programmes goes virtually unchallenged

However, Guskey's (2000) model offers a particularly helpful way of thinking about gauging impact at five different levels. These are participant reaction, participants 'learning from CPD,organisational support and change, participants' use of new knowledge and skills and student learning outcomes. The first level, Participants' Reactions, is currently the most common and easily collectable form of evaluative evidence, and it is generally carried out in the immediate aftermath of the CPD event. However, in many ways it is also the least informative as participants' reaction to the CPD tend to be impressionistic and highly subjective. This is what is also commonly used to evaluate SPRINT activities. Teachers fill in CPD forms to indicate their general view of the CPD activity they took part in.

Level 2 in Guskey's framework comprises participants' learning from CPD. There are several types of learning: cognitive, affective or behavioural, that can result from CPD. These different types of knowledge are acquired and modified in different ways, thus probably requiring different methods of evaluation. In addition to equipping teachers with specific knowledge and skills and effective outcomes, CPD may result in renewed commitment of teachers as change agents, and in renewed or extended moral purpose. These outcomes are crucial to teacher effectiveness, and need to be taken into account at this level of evaluation.

In level 3 of his framework Guskey mentions the importance of organisational support as key to effective provision of CPD.It is clear from the research on school improvement and the growing body of literature on change that CPD programmes were unlikely to have a lasting effect without organizational support. A supportive school ethos and an expectation that all teachers engage in CPD have been found to be important factors in securing change as a result of CPD (Edmonds & Lee, 2002). CPD activities have been found to transfer more easily into changed behaviorus and teaching practices if there is good fit with individuals' professional and personal values and if professional development approaches already exist in the organization (Knight, 2002). As well as being important in leading to success of CPD programmes,

organizational change can often be a prime goal of CPD programmes. Therefore, organizational level outcomes and support are important parts of CPD evaluation since they would have an impact upon motivation on the one hand and sustainability of change on the other. Issues such as alignment of the programme to organizational policies, organizational support for the programme (especially from leadership), organizational resources provided to the programme (including crucially time), organizational barriers to the successful completion of the programme, and general organizational effectiveness and culture are all important aspects in this regard (Guskey, 2000).

Participants' Use of New Knowledge and Skills is Guskey's fourth level of evaluation. When a CPD programme is directly intended to change practice, it is essential to evaluate whether participants are actually using new knowledge and skills acquired. Evaluation of this level will have to take place after a reasonable time, the length of which will depend on the complexity of the knowledge or skills to be acquired and the amount of time participants require to develop and practise these skills (Grace 2001; Guskey 2000.) Joyce and Showers(2002) reviewed literature on how staff development environments can help teachers' repertoire to reach more students.Given that making things happen for students is very important, the authors focus on classroom implementation. They also believe that for changes to take place effective classroom implementation of new teacher skills is a prerequisite .In their review they concluded that the following attributes were essential for teachers to implement the new knowledge and skills which they had learnt.These are:

- Persistence- they needed to be able to push themselves through the first trials to make progress.
- Acknowledgement of transfer is hard, simply seeing a new practice was not enough to be able to use it in class.
- Openness to students– teachers who explained their new approach and made reasons explicit to students were more likely to successfully integrate new behaviour.
- Ability to master the theory underlying the new behaviour goal.

- *Willingness to work with others and an active approach to doing so, stating what they needed and did/did not understand.*
- *Flexibility- a willingness to experiment with new behaviors and openness to evidence that alternatives have something to offer.*

Joyce and Showers (2002) suggest that individuals learn more efficiently over the long term by developing the above skills as this enables teaching in a setting where essential CPD is missing.

The fifth level identified by Guskey (2000) is the one least likely to be measured in evaluations at present, but also the one that is most important because it assesses the impact on student learning. Student learning can be defined and measured in a number of ways. A first distinction is between cognitive outcomes, such as mathematical attainment, and non-cognitive outcomes such as attitudes to school and engagement in learning. All require different methods to determine programme effects (Guskey, 2000).

The most common form of measuring cognitive outcomes is through testing.Standardised and non-standardized testing forms a key part of the educational system, and is usually considered to provide the most reliable measure of cognitive outcomes (Muijs and Reynolds, 2002). As well as cognitive outcomes, non-cognitive outcomes can often be the goal of interventions. CPD can aim to change teaching in ways that improve pupils' enjoyment of the subject, attitudes to school or self-esteem. Many different non-cognitive outcomes exist, and, consequently, many different ways of measuring such outcomes which are fit for purposes are needed.

A recent study of CPD activity in England similarly found that in most cases evaluation took the form of a feedback sheet that was completed by teachers, and which included questions on delivery, content, whether they felt the course had met its objectives, and in some cases whether it was cost-effective and was likely to impact on teaching and learning (Brown, et al. 2001). Other forms of follow-up were unusual, with actual effects on teaching and learning hardly ever being studied, and long-term monitoring of impact usually not present. Teachers

reported that they thought CPD improved teaching and learning, but were unable to provide hard evidence of the impact.

Ofsted (2006) also found that few schools evaluated the impact of CPD on teaching and learning effectively, largely because they failed to identify at the planning stage its intended outcomes.

A 2005 Independent Report of the Ministry of Education Sector Plan on Continuing Professional Develop through SPRINT for lower and middle basic schools in Zambia indicated that there was lack of follow up on the training workshop activities that were conducted. The review found that there was no proper system in place for evaluation of CPD activities and in cases where follow ups were made, the intervals between the CPD activities and the follow up took too long and by then some teachers had already relapsed to old traditional ways. The weakness with this study was that it did not include provision of CPD in high schools and also it did not assess the impact of CPD on teacher classroom practices and student learning outcomes.

2.2.5 Summary

The literature review evidence incontrovertibly shows that engaging in effective CPD is critical to improving quality teaching. Particular approaches to CPD are more likely to be effective and result in changes in teaching and professional practice that positively impact on the learning, behaviour and achievement of students.

The Ministry of Education asserts the central and crucial role played by teachers in raising standards for the achievement of students as research evidence has shown. This shows that investing in teacher professional development can and does improve the quality of teaching. By improving the quality of their teaching and developing their professional expertise, teachers have an impact on the learning and achievement of students.

Government and other agencies have already recognized the need for greater differentiation in the curriculum, learning approaches and assessment strategies

used to ensure standards of achievements for students. From the research evidence teachers also need a differentiated approach to maximize the impact of any CPD.

Further improvements in teaching quality, and thus raising the standard of student learning outcomes, will be achieved through the implementation of a more personalized approach to CPD such as SPRINT. This should be the case where teachers are involved in needs identification, target setting with clearly stated student learning outcomes and means of evaluating them embedded in school CPD policies and collaborative CPD. This must,however, be supported financially and through the development of appropriate knowledge and infrastructure to support the sharing of expertise and the effective management of professional knowledge and expertise.

With the benefit of hindsight, arising from extensive literature review, as illustrated above, the researcher's task in the current study was also to establish the effects of CPD through SPRINT on teacher classroom practices and student learning outcomes in selected high schools in Ndola, Zambia.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

The methodological section of this study comprises the research design, population, sample size and sampling procedure, research instruments, data collection and data analysis.

3.2 RESEARCH DESIGN

The researcher used a case study to establish the effects of CPD through SPRINT on teacher classroom activities and student learning. A case study was used because 'it probes deeply and analyzes interaction between factors that explain present status or that influence change or growth' (Sidhu, 1984)

Both qualitative and quantitative methods were used. Qualitative methods involved observation of the respondents and their description of the programme through interviews and examination of documentary material. Quantitative information was obtained using questionnaires.

3.3 POPULATION

Initially the target population included all Ndola high schools, head teachers, heads of department, and zonal and school INSET providers from the high schools, teachers from languages departments, subject coordinators and pupils. The rationale behind conducting this study in government high schools was based on the study done by Banda N (2002) which concluded that not much CPD was done in Private Schools (the reason this study excluded private schools) and the study done by Mwale (2006) who quoted a letter by Tindi

(2005) emphasizing the strengthening of CPD through SPRINT at High School level.

3.4 STUDY SAMPLE AND SAMPLING PROCEDURES

The sample consisted of all high schools but the sample was limited to urban high schools due to financial and time constraints and to government high schools as this was where there were many teachers who also taught classes with many pupils .This means the sample comprised seven high schools that is Chifubu, Kansenshi, Temweni, Masala, Lubuto, Convent and Milemu. Milemu was also excluded from the study because it had just upgraded to high school status recently while Convent was excluded because it already had some form of CPD even before SPRINT was introduced. Therefore, the study had to cover five high schools. It had a total of 196 respondents. This included all head teachers from the selected schools but since CPD was under the supervision of Deputy Heads in all the schools, they were also the ones used in the study. The sample also included 15 HODs,3 randomly selected from each school in the sample representing 50% of HODs, 60 teachers that is, 12 randomly selected from each of the five schools which was on average 20% of the teacher population in each school as each school had an average of 60 teachers,5 INSET Providers (SIPs) and since all high schools were Zonal Resource Centres, 5 Zonal INSET Providers were also included in the sample. The sample also included 1 Resource Centre Coordinator.

The ages of the 60 teacher respondents ranged between 24 and 53 years. Of these 6 had been in-service for less than 4 years representing 10% of teacher respondents,12 had been serving between 5 and 9 years (20%),8 between 10 and 14 years (13.3%),24 were in -service between 15 and 19 years (40%) and 10 had been in service for above 20 years representing 16.6%.Of the 60 respondents only 3 (5%) had undertaken any form of full time in-service education after starting work.2 of the respondents were degree holders (3.3%)

while the rest were diploma holders.34 (56.6) were male while 26 (53.4%) were female.

100 grade twelve pupils (20 from each school) were randomly selected from each of the five schools. Grade twelve pupils were chosen on the assumption that they were mature and they had been in school before and after the introduction of SPRINT in high schools. It was also deemed important to include the language Resource Centre coordinator to get the general overview of the provision of CPD.

3.5 RESEARCH INSTRUMENTS

Semi structured interviews, questionnaires, documentary evidence and Focus Group Discussions and observations were used to collect data. A flexible guide was provided for interviews. Questions were altered to suit the situation and subjects. Sometimes subjects were encouraged to express themselves freely with only a few questions asked to direct the interview. The interviewer used schedule structured format to take down notes and in most cases exact words were captured.

Questionnaires consisted of personal particulars and an investigation into the respondents' experiences and management of the SPRINT programme. Both closed and open ended questions were used. In closed form questions respondents had to respond by answering yes or no questions or by indicating their choices on a scale from 1 to 5.In these questions respondents were restricted to choose one out of supplied responses. The open ended questions required respondents to frame and supply their own responses. In these, subjects revealed their mind and provided a greater depth of response.

Analysis of records and reports provided a great deal of information on the administration of SPRINT. The analysis involved noting certain characteristics and frequencies in the records and reports.

Both participant and non- participant observations were used to collect data. In participant observation the researcher worked her way in the groups by

participating in the teacher demonstration lessons but became non- participant observer when it came to observing actual classroom lesson delivery and listening to Focus Group Discussions. In Focus Group Discussion respondents were given lead questions which they were expected to discuss freely while the researcher took down notes.

3.6 DATA COLLECTION

The data collection was divided into four phases. In the first phase the Document Analysis Technique was used. This was used to collect more facts on the provision of SPRINT. This information was to be compared with that collected using other instruments. Document analysis included reviewing literature on the structure and guidelines of the provision of SPRINT, minutes of staff and departmental meetings and inspection of CPD record books. Literature on SPRINT structure and its activities was readily available at all the Resource Centres Two schools were not willing to avail their CPD record books but minutes of departmental meetings were made available in all the schools. The documents were analyzed to establish evidence of the implementation and management of SPRINT.

The second phase of the data collection involved in- depth interviews with school INSET providers, Zonal INSET providers, Heads of Departments and Deputy Head Teachers as Head Teachers showed very little knowledge of CPD. Both semi-structured and unstructured interviews were used .The interview guide had questions pertaining to research questions and they were varied though in some cases routine questions were asked. In-depth interviews provided the basis for judgments to be made and for a comparative analysis of the impact of SPRINT that had been achieved. The central purpose of the study was to capture reliable and valid information on the impact of CPD from different stakeholder perspectives and from different data sets. Note taking was used to collect data during interviews as the respondents felt very uncomfortable with recording. Two days were spent on interviews in each school. In order to elicit

information, confidence was gained from respondents by first engaging them in informal discussions.

Focus Group Discussions were also used to collect data from teachers and pupils during the third phase of information gathering. Five focus groups were held with six teachers from each of the five schools in the sample. This method was used for generating themes and issues probed using the other research instruments .Twenty grade twelve pupils were randomly selected from each of the five schools in the sample to form the Focus Groups. Discussion topics were given to pupils and note taking was used to capture the data as the pupils were discussing.In order to supplement the information gathered using Focus Group Discussions, questionnaires were distributed to teachers and HODs after the purpose of the research was explained to them. To avoid having fewer respondents than targeted, 15 questionnaires were distributed in each school. Questionnaires covered attitudes and experiences towards SPRINT activities and management. Respondents were asked to complete the questionnaires in their free time. Each questionnaire was accompanied with instructions on how to fill them in with further clarification given as demanded by respondents. Anonymity and confidentiality were ensured by not allowing respondents to write their names on the questionnaires. This helped remove fear of victimization and encouraged respondents to give more honest answers.

The fourth phase of the data collection process involved gathering more information on participant reaction and learning from CPD using an observation system based on the Ministry of Education format. This was used to observe Demonstrate Observe Discuss Implement (DODI) sessions (See Appendix vii) This aspect of data collection process aimed at relating the activities of SPRINT to the live reality of the classroom experience. Relevance of an activity to the individuals' practice is a key issue, and so by looking at and discussing their own practice, it was hoped that teachers would be able to determine a personal CPD pathway that would be useful, relevant, and rooted in their own experiences, while still enabling the main aspects of high quality CPD, as outlined in the literature review, to be realized. As such, use of the observation

system was intended to. root CPD activities in the classroom, develop an ongoing cycle of peer support and observation, increase ownership and motivation in CPD and enable teachers to assess the impact of their own CPD at classroom level and to help determine further areas for development, It was agreed with all staff present that the completed observation sheets would remain confidential between the observer and the observed. Each observation would be immediately followed by a discussion between the observer and the observed.

To obtain feedback from the observation system, after the observations had been completed, interviews with individual teachers also included discussions on the observation system. It was easy to observe the lesson demonstrations as the researcher was considered part of the team since participatory observation was used. During classroom follow-ups (ie, after the DODI sessions) data were collected by using non-participatory observations and it was not easy to get teachers to agree to be observed as they took it the researcher had assumed the role of an inspector. The other problem was that some teachers were not teaching the topics discussed in DODI meetings, which made it difficult to know if they had benefited from the lesson demonstrations.To obtain data on teacher effectiveness from pupils, they were given tick lists for qualities of an effective teacher and later on were allowed to discuss their choice of qualities in focus groups.

3.7   DATA ANALYSIS

The data collected were analyzed by identifying and categorizing significant themes relevant to research objectives. Thomas Guskey's levels of evaluation were used as a framework for both investigation and streamlining of data collected. Guskey suggests that this method of evaluation of impact takes place at five different levels. These are Participant reaction, Participant learning, Organizational support and change, Participant use of new knowledge and skills as well as pupil learning outcomes. The findings were presented in the form of descriptions and extensive quotations. Field notes were re-read, edited,

classified and thematized. Percentages were used to analyze data from questionnaires and results were tabulated. Data from interviews and Focus Group Discussions were coded and emerging themes were grouped into categories using the comparative analysis technique. The themes and categories of initial data were compared with those collected using other instruments. Then categories were regrouped to get the most significant categories and themes.It should be noted, however, that the data were first converted into brief notes and then cumulated under various categories.

Quantification of data obtained from questionnaires was generally achieved through tabulation and counting. Presentation of results in tabular form and percentages was invariably used.

In analyzing data from documents, frequency was an element of importance. This was done by carefully analyzing logical contribution of one element to the total picture.

Analysis of observable data was done by using observation forms and by direct interpretation by the observer during observations.

CHAPTER 4

PRESENTATION AND DISSCUSSION OF FINDINGS

4.1   Introduction

The findings are presented and discussed according to the objectives based on Guskey's levels of evaluation which are participant reaction and learning, participants' use of new knowledge and skills, organizational support and student learning outcomes.

4.2 Participants' reaction and learning from CPD.

Research evidence indicated that respondents learnt from CPD events and that these helped them improve their teaching practices.94 out of the 125 comments of participants from documentary evidence representing *75.2% indicated that* participants felt the training from CPD was worth while and they had learnt from the various CPD events they had taken part in. Examples of comments were such as:

'Lesson demonstration was educative', 'Presentation helped me to know how to handle summaries',' Group work helped me get clarification where I had doubts '

The following table shows further evidence on participant reaction and learning from CPD based on whether respondents felt CPD had improved certain attributes in their teaching practices.

TABLE I: Responses of teacher reaction and learning from CPD based on questionnaires.

ATTRIBUTE	YES (%)	NO (%)
Confidence	62	38
Motivation and morale	16.6	82.2
Self Esteem	64	36
Enthusiasm	18.8	81.2
Improved Self Evaluation	0	100
Creativity	33.3	66.6
Understanding of good and successful practice	60	40
Greater Subject knowledge	60	40
Willingness to continue CPD	20	80
Initiative	18.8	81.2
Career Progression	0	100
Collaboration	46	52
Teacher pupil relationship	60	40

Evidence from the table above shows that CPD through SPRINT increases teacher confidence, self esteem, understanding of good and successful practice and subject knowledge. Though teacher-pupil relationships are seen to improve

because of CPD activities, motivation, morale and enthusiasm were low and teachers did not show willingness to continue with CPD.The results also show that CPD neither affected career progression nor helped self evaluation in any way.

Further information on participants' learning from CPD events was obtained from interviews with teachers.

The following table shows interview responses on whether teachers had learnt from CPD.

TABLE II : Teacher Reaction and Learning from CPD

RESPONSE	FREQUENCY	PERCENTAGE
YES	36	60
NO	19	31.6
NO RESPONSE	5	8.3
TOTAL	60	100

Results from the Table II show that 60% of the respondents felt they had learnt from CPD events while 31.6% indicated that they had not.5 (8.3 %) said that they could not determine whether they had learnt anything from CPD activities. A number of themes arose from focus group discussions and interviews with head teachers and INSET providers. Eighteen teachers, (50%) from three focus groups concluded that providers failed to come up with training content that was necessary to their teaching. Teachers described a feeling of guilt and professional negligence if they took a day away from the classroom to attend a CPD activity that failed to offer anything of use to their pupils.

Teachers from these focus groups also felt that sometimes providers were unresponsive to the preference of teachers when timetabling CPD activities. Often training was offered during busy periods. Teachers preferred to engage in

training when things were quieter at school particularly at the beginning and end of school term. Twenty (71.i %) teachers preferred sessions given after school whereas ten (27.7%) found such time too draining after a full working day. Eighteen 18 (60%) of the teachers were willing to give up one or two days of their holiday for CPD activities while twelve 12 (40%) said holiday time was for recovering from demands of the term.

All the 36 teachers in the focus groups expressed enthusiasm about networking and learning activities that took place outside school. They reported that although those opportunities took relatively little time out of their working lives, they found them stimulating and refreshing, and they assisted their overall professional development. Interestingly, this links to the argument made by Wenger (1998), that engagement in social practice is the fundamental process by which we learn and gain sense of identity, in this case professional identity.

Forty-eight teachers (60%) of the sample, expressed enthusiasm for observing peers teaching the same subject. Five of the HODs representing 33.3% reported organizing peer observation within departments especially after the CPD activity as a way of follow up activity. They also mentioned observations in other schools after a cluster CPD activity. The ability to visit other schools in this way was considered to be extremely important as it prevented staff teams from being introspective.

However, two head teachers (40%) felt that external CPD provision had nothing to offer to their schools. Two other head teachers (40%) felt that there was conflict between the need to participate in CPD and the effect this would have in the short term. All the five head teachers agreed that CPD was the main tool for improving school performance but that too much CPD did impinge on the day to day running of the school. Head teachers commented on the need to explore the idea of non disruptive CPD, which did not take teachers from class to disrupt lessons.

This research found out that participants were not motivated by CPD events. Only 16% reported being motivated and the reasons cited were lack of incentives and encouragement from the administration.18.8% were the only

ones who showed willingness for SPRINT activities to continue. Respondents also pointed out that in most cases they were not involved in identifying training needs and because of this they felt SPRINT activities were imposed on them and dealt with less important topics which made them lose interest. This finding could be supported by a 2001 investigation on LEA support for CPD (Brown, Edwards and Lee) who identified a significant role in supporting school CPD especially where it met the needs of the school. They also noted that at individual level it had great impact when teachers chose and directed their own CPD learning from CPD

4.3   Organisational Support

The findings on Organisational support indicated that SPRINT was not properly supported and managed by both the school management and the Ministry of Education. Evidence from documents revealed that annual work plans were set with objectives and targets of activities clearly laid down but the estimated budgets were far from being met, making even the work plan objectives and targets not to be met due to inadequate time and resources provided for the programme. For example, at Chifubu high school 3.6 million kwacha was budgeted for CPD events in the Languages department but only 180 thousand kwacha was spent indicating that only 5% of the total budget was spent. The picture was not different at Temweni and Kansenshi where only 7.5% and 10 % respectively, of what was budgeted for CPD activities was used.

Documents also indicated that Subject Association Activities were almost non existent in all schools, though most of the activities that were recorded were for revamping subject Associations. Further evidence showed that Teacher credit cards were either not available or not filled in, in all the schools. From the five schools three deputy Heads kept up to date CPD record books but two claimed they were new in the station and had not yet organized the records. CPD was rarely discussed by head teachers in the opening and closing staff meetings. In departmental minutes, CPD planning was discussed but there was no evidence

of reviewing what was done. Other problems indicated in the documents were irregular visits by monitors and lack of consistency in recording credits accrued by participants.

Table III Teacher Responses in relation to teachers' views on organizational support in percentages.

ACTIVITY	ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
DODI ATTENDANCE	33.3	13.1	18.8	3.3	20
HOD SPRINT FOLLOW UP IN CLASS	33.3	6.6	20	10	20
HOD LESSON OBSERVATION	0	0	33.3	40	20
HOD ORGANISING DODI	10	33.3	10	16.6	16.6
DISCUSSION OF CREDIT SYSTEM WITH HOD	0	0	20	40	40
HEADTEACHERS FINANCIAL AND MATERIAL SUPPORT	16.6	13.3	33.3	16.6	20
VISITS BY MONITORS	0	7.3	13.3	23.3	50

The findings from the table above indicate that there was little organizational support offered for CPD. Neither the school management nor the monitors regularly followed up activities of CPD. Non of the teacher respondents reported that HODs' always observed lessons and only 10% of the teacher respondents indicated that HODs' always organized DODI activities. Financial and material support towards the programme was also found to be very minimal. Only 16.6% of teacher respondents agreed that head teachers always supported them materially and financially when they organized CPD activities.

More evidence on organizational support was collected from focus group discussions. The findings from focus group discussions are presented in the following figure.

Figure 1: BARRIERS OF CPD
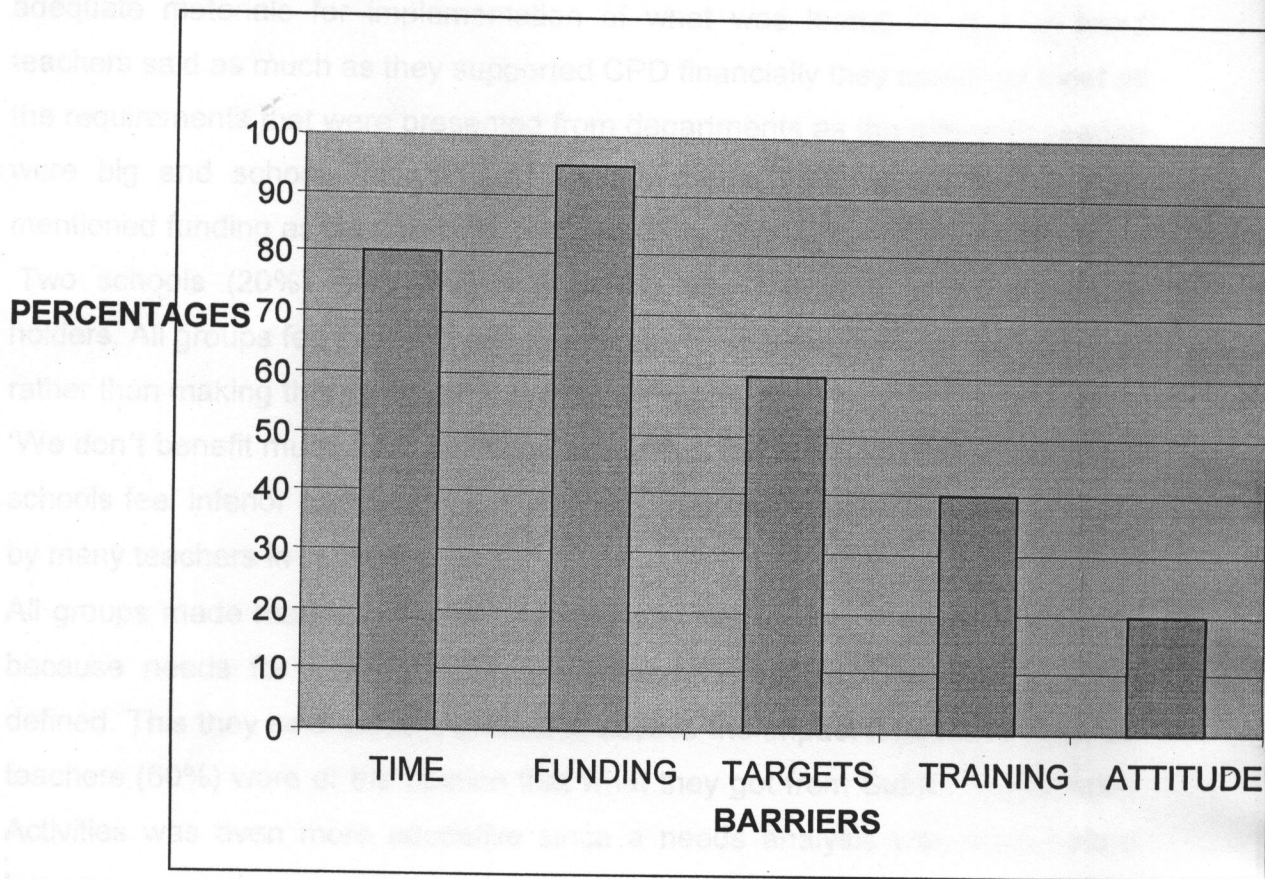
Evidence from figure 1 indicates that teachers' attitude (20%) was at times seen as a barrier, either because colleagues did not wish to take advantage of CPD opportunities, or because there was reluctance on the part of particular teachers to acknowledge a need for development.

Lack of time, however, was highlighted by all the five SIPs as an impediment either to their own work or to the development of colleagues, who lacked time for reflection and working with peers. As can be seen from figure 1, 48 teachers representing 80% of the respondents mentioned lack of time as a barrier to the uptake of CPD.

All groups cited lack of motivation in terms of incentives for teachers as the main barrier to CPD provision.

The other problem expressed by all groups was poor funding and lack of adequate materials for implementation of what was learnt. In fact all head teachers said as much as they supported CPD financially they could not meet all the requirements that were presented from departments as the amounts needed were big and schools didn't have enough money.96% of the respondents mentioned funding as a barrier.

Two schools (20%) cited apathy from the administrators and other stake holders. All groups felt that high schools should have been grouped on their own rather than making them into zonal resource centres.

'We don't benefit much from meetings as most of the times teachers from Basic schools feel inferior and as a result do not participate freely.' This was echoed by many teachers in various groups.

All groups made mention of poor planning and lack of target setting. This was because needs for training were not properly identified and objectives not defined. This they said made it difficult to assess the impact it had on pupils. 36 teachers (60%) were of the opinion that what they got from Subject Association Activities was even more educative since a needs analysis was done before lesson presentations.

Further evidence from interviews showed that although most CPD leaders had formal training for their roles through workshops and seminars, six out of the ten, representing 60%, were not satisfied with the training they received. On the other hand four were enthusiastic about the opportunities their role gave them to work closely with interested, supportive and experienced head teachers and / or senior colleagues.

All the five SIPs were responsible for the day to day running of CPD in the school, including its administration. In three schools, these tasks were distributed between the SIP and HODs. All leaders reported working closely either with the Head teacher or with the Deputy.

None of the CPD leaders in the interview phase were solely responsible for the CPD budget in their schools. They made the budgets with HODs who also consulted members of their departments. All SIPs reported that their budgets were heavily cut down upon submission to the administration, which made their work very difficult.

At three of the schools, CPD was properly timetabled. However, head teachers at these schools felt that although CPD was beneficial to both teachers and pupils, it was disrupting normal school programming. However, they were quick to mention that pupils were given work by their teachers and supervised by prefects as the teachers were attending demonstration lessons.

This research found that organisational support was lacking in all schools visited. Administrators did not provide necessary support and encouragement as well as facilitate the training to achieve desired goals. Only 16.6% of the respondents reported the presence of head teachers in any of their demonstration meetings. Three schools had deliberate polices of encouraging CPD and had even timetabled it .The annual school work plan objectives were not met due to financial constraints and no efforts were made by the administration to source for additional funding. The costs included incentives for teachers and materials needed to implement what was learnt. Teachers felt if SPRINT had to be an integral part of school curriculum it had to be well funded and the teachers had to be motivated financially especially when they held activities outside the school hours. Only 33% of the respondents mentioned being given financial assistance often by the school for their CPD activities.

Respondents in the study also identified time as a barrier to the provision of effective CPD. Time was mentioned in terms of both the actual time spent on the CPD event and also in terms of taking time to implement change. Schools in the study highlighted concerns about CPD opportunities that removed staff from their teaching duties. As indicated earlier, Head teachers commented on the need to explore the idea of non-disruptive CPD, which did not take teachers from the classroom and so disrupt pupil learning. However. the data showed that head teachers had not moved beyond the initial stages of thinking about this

issue. External support was also minimal as very few schools had been visited by external in service providers.50% of the respondents said they had never been visited by subject coordinators Nothing had been done to motivate those that had accrued a number of credits and in most cases these had not been recorded. All these reasons explain the apathy the programme had met.

In interviews, over a third of head teachers expressed concern for their own CPD, particularly those head teachers who had been at a school for several years. There was a feeling that CPD for head teachers was often neglected especially on how to run and evaluate its impact. The study found that the assessment of CPD was usually not done. CPD providers often felt that they had limited experience of assessment approaches. Most CPD leaders in the study felt that they were generally not equipped with the skills and tools to adequately perform the evaluation role. Head teachers and CPD leaders themselves expressed a need for preparation for the role of CPD leader. It was suggested that this training needed to come from experienced CPD leaders or external expertise.

The interview phase found some enthusiasm for national standards for the CPD leader in schools with clear guidelines for fulfilling the role. It was felt that such guidelines would allow CPD leaders to set their own targets and goals, and would allow for recognition of the importance of embedding evaluative practices.

4.4   Use of new knowledge and skills

From the evidence collected it is clear that most of the new skills and knowledge acquired at CPD events were not utilised.

The findings from questionnaires show that only 25 respondents (43 %) used new skills and knowledge gained from CPD while 35 (57%) of the respondents did not. as shown figure 2 .

43%

57%

■ 1
■ 2
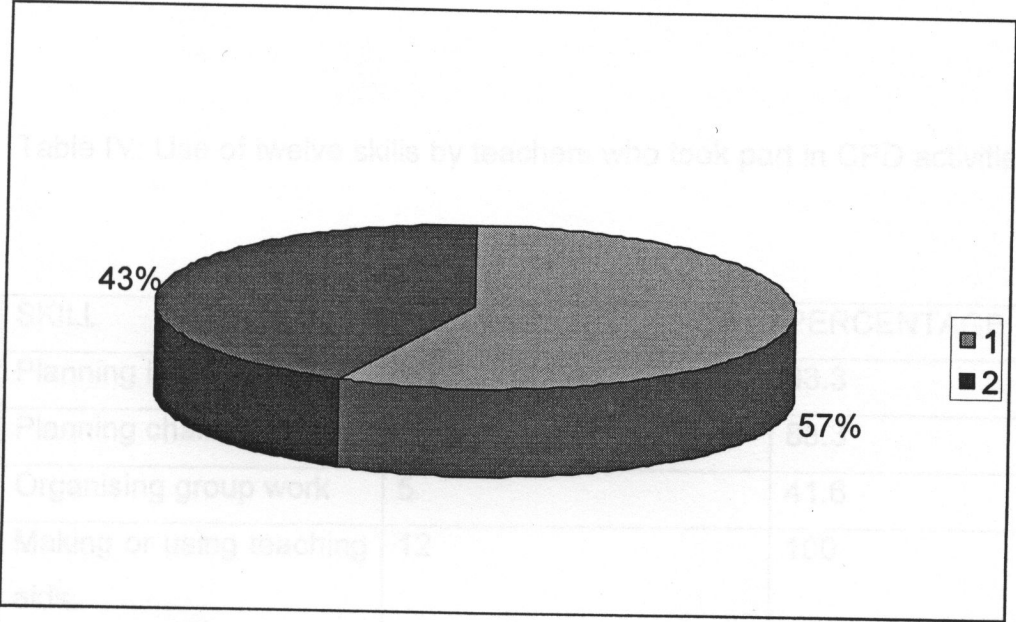
Interview findings show that head teachers did not physically do observations in class to determine whether the skills and knowledge teachers learnt had been used or not. It was also established that even Heads of Departments did not make follow-ups on teachers' classroom practices after the CPD activities. However, they felt teachers were using the new skills and knowledge.

The In-service providers indicated that there was no provision for them to do class observations to see if teachers were implementing the new skills and knowledge but depended on observations from Heads of Departments.

Though Heads of Departments claimed they were following up classroom activities, evidence from questionnaires and interviews from teachers indicated that observations were rarely carried out.

However classroom observation by the researcher based on the twelve skills on the observation sheet on twelve teachers who had taken part in CPD and 12 who had not yielded the following results as as shown in table iv.

Table IV: Use of twelve skills by teachers who took part in CPD activities

SKILL	FREQUENCY	PERCENTAGE
Planning lessons	10	83.3
Planning chalk board	10	83.3
Organising group work	5	41.6
Making or using teaching aids	12	100
Questioning for teaching and learning	12	100
Encouraging communication	8	66.6
Reflecting	4	33.3
Exploiting textbooks	9	75
Testing for teaching and learning	12	100
Using the local environment	6	50
Using songs, games and rhymes	0	0
Drawing	3	25

Table V Use of twelve skills by teachers who did not take part in CPD

SKILL	FREQUENCY	PERCENTAGE
Planning lessons	2	16.6
Planning chalk board	10	83.3
Organising group work	0	0
Making or using teaching aids	2	16.6
Questioning for teaching and learning	6	50
Encouraging communication	6	50
Reflecting	4	33.3
Exploiting textbooks	4	33.3
Testing for teaching and learning	6	50
Using the local environment	4	33.3
Using songs, games and rhymes	0	0
Drawing	4	33.3

Comparisons were made between the two tables above and it was observed that those who attended CPD activities were high on Planning lessons (83.3%, making use of teaching aids (100%), questioning for learning and teaching

(100%), encouraging communication (66.6%), testing for learning and teaching (100%) and exploiting text books (75%).Both categories scored very low on organizing group work, drawing and reflecting on lessons. Both did not use songs, games and rhymes. On planning the chalkboard, both categories scored highly (83.3%).The researcher attributed this to something imbedded in the teachers' mind during pre-service training

The other notable discovery in this study was that teachers were not involved in identifying their needs and in setting targets. 46% of those who did not implement new skills learnt at demonstration lessons reported that they did not implement what they learnt because they already knew the skill and 54% indicated that the barrier to implementation was lack of resources to produce necessary materials. From the total sample of 60 teachers only 43% indicated using new skills. This can be linked to Foster (2006) who found evidence in some schools that teachers who were enthusiastic about implementing new practices following CPD events were sometimes prevented from doing so by school leaderships' reluctance to move from the statusquo and inability to provide necessary requisites for such implementation.

The research findings also indicated that teachers did not implement new skills and knowledge because they were not given enough time to experiment with the new skills before being observed. A similar study on CPD by OFSTED (2002) in 2000 and 2001 with evidence focusing in detail on 112 schools in 10 LEAs found similar results. On the whole they concluded that schools failed to allow enough time to support effective CPD and to ensure that newly acquired knowledge and skills were consolidated, implemented and shared. Procedures used to judge the extent to which professional needs had been met were weak and expected gains rarely stated explicitly when planned or used as a criterion for judging effect.

Further evidence of teachers' use of new skills and knowledge was gathered from pupils' group discussions. Table VI shows frequencies of their responses to what they deemed as an effective teacher.

Table VI: Pupils perception of an effective teacher

QUALITY	Very Important	Important	Not Important	Total
Planning Lessons	90	9	1	100
Organising Group Work	65	25	10	100
Making and Using Teaching Aids	73	17	10	100
Asking Questions About Lesson	85	15	0	100
Encouraging Communication	72	15	13	100
Using Text Books	33	11	56	100
Testing After Lesson	96	2	2	100
Reflecting Over Previous Lesson	20	23	55	98
Using Local Environment to Teach	15	5	80	100
Using Songs, Games and Rhymes	0	0	100	100
Use of Chalkboard	I1	68	17	96
Drawing	18	82	0	100

As can be seen from Table VI above, pupils indicated attributes of an effective teacher by rating each of the twelve skills as very important or not important. The skills that were highly rated as being very important planning lessons (90%), asking questions about the lessons (85%), testing after lessons(96%),encouraging communication (72%) and organizing group work (73%).These attributes were also found to be highly present in teachers who attended CPD as shown in table 1V.This evidence confirms that teachers who took part in CPD activities were in a better position to apply the twelve skills in their teaching which in turn improved the student learning outcomes as shown by test scores.

Pupils cited various reasons for their choice of ratings. They said that lesson planning aided teacher effectiveness as teachers' explanations were more systematic and easier to follow than those which were impromptu where their explanations seemed jumbled up. They also claimed that group work helped them get more ideas from friends and that it also gave them confidence as they discussed with friends .They further said that testing after lesson and asking questions about the lesson was extremely important as it enabled them know how much they understood and helped them know where they needed clarification. The reasons the pupils gave can be linked to the better performance of pupils in classes where teachers used the skills.

4.5 Student learning outcomes

Student learning outcomes was another area of investigation in this study. Oservations in this regard revealed that CPD had an impact on the student learning outcomes. Students whose teachers attended CPD showed more confidence, enthusiasm to learn, motivation and high standards of performance. Further evidence as shown in figure 3 indicates that average scores from

exercises of pupils whose teachers attended CPD were higher than those who did not. At Kansenshi High School the higher average score was in class A where the teacher did CPD was 60% while class B without CPD had 58%.At Masala High School class A with a CPD teacher had 74 % and class B without CPD had 68% as average scores. At Temweni High School class A whose teacher took part in CPD had 58% while class B whose teacher did not take part in CPD had 55 % average scores.

The following figure shows results of test scores from three schools and qualifies teacher response that CPD improves student performance although the differences were very minimal.

Figure:3   AVERAGE   SCORES
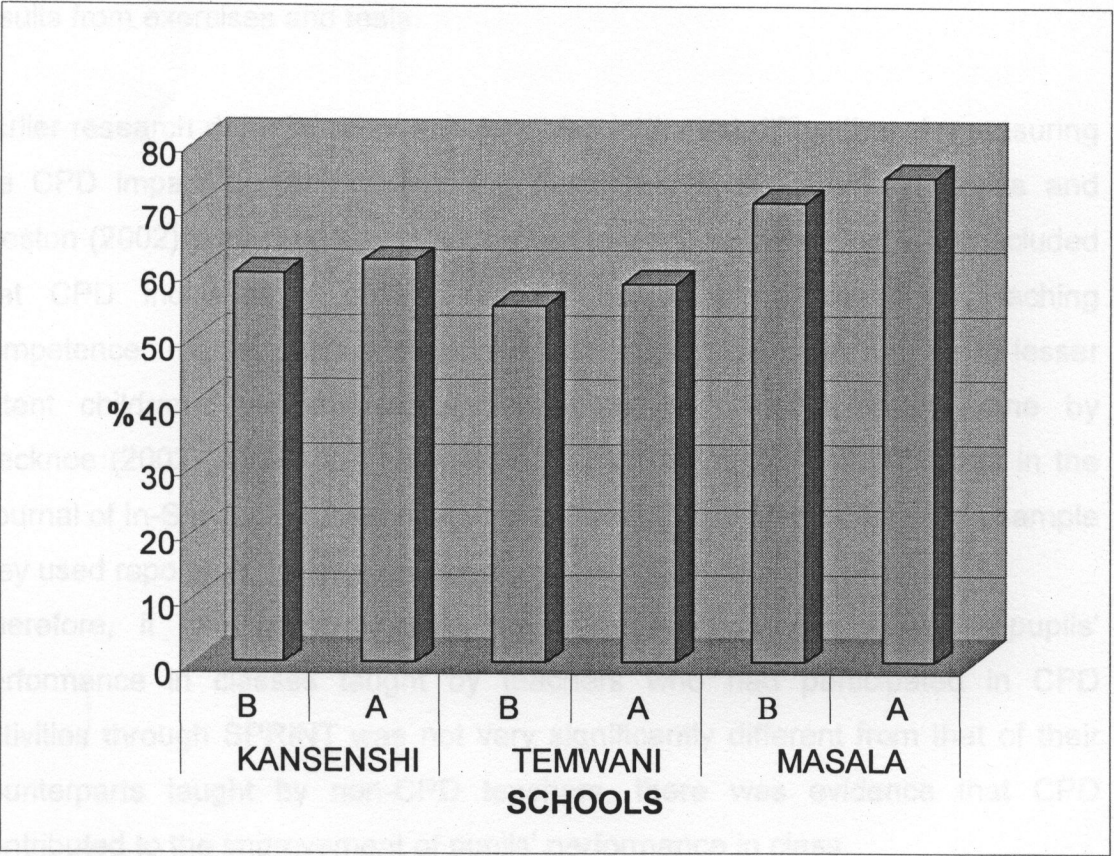
It is clear from figure 3 above that although the difference in the average scores from the three schools were very minimal, there was some evidence that CPD improved student performance.In other words, average scores from class exercises following CPD events showed that pupils whose teachers had taken part in CPD events reacted better to lesson presentations than pupils whose teacher did not. Out of the 30 teacher respondents who answered the question whether they felt pupil confidence, enthusiasm, motivation, lesson reflection and standard of performance had been increased as a result of their involvement in CPD, 18 (60%) indicated pupil confidence in participation had been increased.20 (66.6%) mentioned increased pupil enthusiasm,13 (43.3%) indicated increase in pupil motivation,16 (53.3%) said pupils showed better reflection on what they learnt as they were able to ask mature questions and 25 (80.3) stated that performance standards of pupils were raised as shown by the results from exercises and tests.

Earlier research done by other scholars also indicated difficulties of measuring the CPD impact on student learning outcomes. A research by Davies and Preston (2002) published in the 'Journal of In-Service Education',28, concluded that CPD indicated a positive impact on subject knowledge, teaching competence, management styles, and promotion prospects and to a lesser extent children's performance and relationships. Another study done by Flecknoe (2002) based on Leeds Metropolitan University and published in the 'Journal of In-Service Education, 26, indicated that more than 80% of the sample they used reported positive experiences especially in terms pupil attitude.

Therefore, it can be argued in the current study that although pupils' performance in classes taught by teachers who had participated in CPD activities through SPRINT was not very significantly different from that of their counterparts taught by non-CPD teachers, there was evidence that CPD contributed to the improvement of pupils' performance in class.

CHAPTER 5

CONCLUSION AND RECOMENDATIONS

5.1   Introduction

The conclusions and recommendations in this chapter are made in relation to the research objectives stated in Chapter One. The study, as indicated in Chapter One, sought to do the following things:

- determine teacher reaction and learning from CPD

- find out if the SPRINT programme had organisational support.

- determine the effect of SPRINT activities on teacher classroom practices.

- find out if SPRINT activities improved student learning outcomes.

5.2 Summary

A number of key themes arose from the data regarding the assessment of the impact of CPD through SPRINT on teacher classroom practices and student learning outcomes. In this final section these will be summarized and some

recommendations made on the basis of these findings and implications .The research came up with the findings stated below.

5.2.1 Teacher reaction and learning from CPD

The study revealed that CPD through SPRINT increased teacher confidence, self-esteem, understanding of good practice and subject knowledge. It also improved teacher-pupil relationships and collaboration with other teachers. However, it was evident from the findings that most respondents did not show willingness to continue with SPRINT as there was lack of motivation, Morale and enthusiasm were also low among the respondents due to lack of incentives for teachers. The study also revealed that SPRINT did not improve initiative and creativity among teachers. Respondents also echoed lack of involvement in training needs identification and target setting as a source of their frustration and dissatisfaction. Teachers were not involved in identifying training needs let alone setting the goals and objectives of their CPD.Because of this, there was lack of the sense of ownership and enthusiasm as teachers did not feel they were doing it for their own professional growth

5.2.2   Organisational support

The research found that schools cited a number of issues as barriers to CPD: the three most commonly cited were funding, time and perceived disruption to pupils' learning when their teachers were involved in CPD during school time. Funding remained a concern for most schools. Most schools could not meet the annual work plan objectives because of limited funds and the program was also met with apathy as teachers felt there was no monetary gain.

As far as organisational support was concerned, it was established that CPD leaders required targeted training for their role. Many leaders felt unprepared for the role, both in terms of organization, management and assessment of its impact on the teacher classroom practices and student learning outcomes. They did not even know what indicators they should look for to assess the impact of SPRINT. The research also found that there were no national guidelines on how to assess the impact of CPD through SPRINT.The research found that schools did not record the credits teachers accrued and in cases where they were recorded nothing more had been done to motivate teachers who had actively participated in SPRINT activities CPD leaders did not know their responsibilities. Some leaders had no financial responsibilities in relation to CPD, others had a great deal. Some leaders were involved in planning for individual schools' CPD,while others were not lack of clarity about the role of the CPD leader,on a national basis left individual schools and individual CPD leaders in the position to decide how much involved they should be in CPD activities.

While many respondents felt that CPD was important in the career life of a teacher, it had not been given the importance it deserved due to constraints of time and lack of resources .It was noted that while time was often set aside for dissemination of learning through CPD, the process often stopped there, with no further investigation as to the effect of that learning. Resources were also rarely available to implement what the teachers learnt and at times demonstration meetings could not even take place because of scarcity of resources.

5.2.3   Use of new knowledge and skills

Concerning the use of new knowledge and skills,this study revealed that teachers used new skills and knowledge gained from CPD events when they felt that the knowledge that had been gained was relevant. However,

respondents cited lack of resources as a hindrance to using most of the new skills and knowledge.

5.2.4 Student learning outcomes

This study revealed that CPD through SPRINT increased student confidence, enthusiasm, pupils reflection on what they were learning and raised performance standards of students. Nevertheless, it was only participant (i.e. teachers') reaction and learning that was evaluated without any attempt to evaluate the impact on student learning outcomes. Research further showed that the observation system was based on what the teacher did in class and nothing on the student. In other words, there was no deliberate programme to assess the impact of SPRINT on the achievement of students. Most teacher respondents indicated the need to have indicators for judging student learning outcomes rather than depending on class exercises only.

5.3 Conclusion

From the findings it is clear that CPD through SPRINT had positive effect on teacher classroom practices and student learning outcomes. Howevever, it had suffered drawbacks because it lacked, among other things, organisational support. For instance it was generally agreed that funding and resources for the program were inadequate. Lack of Organisational support at both school and higher levels was also rated highly by the respondents. Most respondents revealed that monitors did not do much to follow up SPRINT activities and as such SPRINT had not been accorded the importance it deserved. Other problems that were cited were lack of clear guidelines on the role of CPD

leaders, lack of evaluation procedures for pupil performance, difficulty of assessing pupil achievement and lack of incentives to motivate the teachers.

5.4 Recommendations

5.5 It can, therefore, be concluded that CPD through SPRINT would only have a lasting effect on teacher classroom practices and student learning outcomes with the provision of adequate organisational support.

The recommendations will be under three headings: implications for practioners, implications for policy makers and implications for Researchers.

5.4.1 Implication*s* for practioners

(a) Need for training of CPD Leaders

Appropriate training should be provided for CPD leaders in schools. Where possible and appropriate, this training should include input from experienced practitioners. It should include issues relating to needs analysis, management, organizational and leadership skills and particularly knowledge of assessing the impact on student learning outcomes.

(b) Need for adequate time and resources for CPD

Time and resources for CPD must be factored into the school development plan and budget so that they are not seen as an extra cost and time to the events or activities of the school but integral to them.

(c)Need to make CPD Research based

There is need to expose teachers to technology such as internet so that they are able to research. Libraries also need to be well stocked with up to date materials.

(d)Need for clear role specification for CPD leaders

The findings suggest that there is a need for a nationally accepted generic role specification for the post of CPD leader. This specification must relate to the training required for the role, as well as to the place of the CPD leader within the school. Such specifications must have the flexibility to be applied to very small schools as well as very large ones, but they must also set out clearly what is expected of the CPD leader in terms of needs identification, planning, management, assessment of CPD and what resources are available to support the role

.

(e)Involvement of teachers in identifying training needs

This implies that teachers should be actively involved in needs assessment as well as setting goals and objectives so that they understand what they are trying to achieve. In this way CPD will become more meaningful to them and their motivation will be raised. More coherent and long term planning of individual, departmental and school CPD programmes with wider consultation with teachers can never be an exception.

5.4.2. Implications for Policy Makers

(a) National standards for CPD leader role

If CPD leaders are people who should be specifically trained for their roles.They need to have their own salary scale or have an allowance attached to the responsibility in order to motivate them

(b) National guidelines for appropriate assessment of CPD through SPRINT

There is need to formulate national guidelines for the appropriate assessment of CPD experiences, which would apply in all schools. The guidelines should also include examples of methods of evaluation of impact at all of the Guskey levels, concentrating on student learning outcomes which are not presently represented in school practice.

(c) Accreditation

A national framework for the accreditation of CPD should be enforced if teachers have to see the benefit of the effort they put in CPD activities. The development of accreditation for CPD should focus on its positive role in career progression
.

(d) Adequate resources

CPD must be prioritized in terms of resources. These would include increasing the funding for teacher education to include CPD and allowing schools to come up with initiatives of raising funds for the same.

5.4.3. Implications for Researchers.

(a) More research evidence should be collected about evaluative practices aimed at Guskey's levels of evaluation. In addition to this, further research should be undertaken to find out methods of evaluating how SPRINT activities are impacting on teacher classroom practices and student learning outcomes.

(b) A more in-depth system of observation should be worked out in order to include effective assessment of student learning outcomes. The research showed that the observation system was based on what the teacher did in class and nothing on student learning .There is need to research on how students learn so that this is included in the observation system and when conducting

follow ups to CPD they should assist in determining whether students are benefiting from CPD or not.

6.0 REFERENCES

Armour , P , and Yelling, N , (2004) **Professional 'development' and professional 'learning': Bridging the gap for experienced physical education teachers. European Educational Review, 10, 71-93.**

Banda H.M (2002**), In-Service Training Opportunities Among Secondary School Teachers in Private Schools**. Lusaka: University of Zambia.

Brown,S,Edmonds,M and Lee,R (2001**) Continuing Professional Development,LEA and School Support for Teachers (LGA) Research Report)**,Slough..

Cannoly, R and James H (1998**) Managing the school improvement journey: The role of continuing professional development. Journal of In-Service Education, 24 (2), 271 – 282.**

Chileshe J,Musonda L and Mushiwe T,(2007), **Review of Ministry of Education Sector Plan** Lusaka:Royal Norwegian Embassy.

Clare,M,(1976**) Staff Development for School Improvement:A Focus on the Teacher**.New York.The Fulmer Press.

Cordingley, P., Bell, M., Rundell, B. and Evans, D. (2003**) The impact of collaborative CPD on classroom teaching and learning. In Research Evidence in Education Library. Version 1.1.** London: EPPI-Centre, Social Science Research Unit, Institute of Education.

Cordingley, P., Bell, M., Thomason, S. and Firth, A. (2005) **The impact of collaborative continuing professional development (CPD) on classroom**

teaching and learning. Review: How do collaborative and sustained CPD and sustained but not collaborative CPD affect teaching and learning? In **Research Evidence in Education Library.** London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Cordingley, P., Bell, M., Evans, D. and Firth, A. (2005b) **The impact of collaborative CPD on classroom teaching and learning. Review: What do teacher impact data tell us about collaborative CPD?** In **Research Evidence in Education Library**. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Craft, A. (2000) **Continuing Professional Development: A practical guide for teachers and schools.** London, Routledge Falmer.

Da Costa (1993) **Study of teacher collaboration in terms of teacher-learning performance. Paper given at the American Educational Research Association Annual Meeting**. Atlanta, GA, USA, April 12-16.

Day, C. (1991). **Quality assurance and professional development. British Journal of In-service Education 17(3): 189 - 195.**

Day, C. (1999). **Developing Teachers: The challenge of lifelong learning**. London, Routledge Falmer

Department of International Development/Government of The Republic of Zambia,**Action To Improve English ,Mathematics and Science:Report July-October 1998,**Lusaka,British Council.

DFEE (2001) **Learning and Teaching: Strategy for Professional Development.** London: DFEE

DFES (2005) *Leading and coordinating CPD in secondary schools*.Nottingham:DFES

Eastwood,T and Loius, D,(1992) **Understanding Learners in Open and Distance Education**. London: Kogan Press.

Edmonds S. and Lee, B. (2002) **Teacher feelings about continuing professional development. Education Journal, 61, 28-29**

Fielding, M., Bragg, S., Craig, D., Cunningham, I., Eraut, M., Gillinson, S., Horne, M., Gersten, R., Morvant, M. and Brengelman, S. (1995) **'Close to the classroom is close to the bone: Coaching as a means to translate research into classroom practice'.**

Flecknoe,M,(2002) **Can Continuing Professional Development For Teachers Be Shown to Raise Pupils Achievemnt.Journal of Inservice Education,vol 26 No 3 pp437-457.**

Foster,M, (2006) **CPD Coordinators' perspectives on the Management, Evaluation of impact of CPD for teachers. Paper presented by BERA Comference.University of Warwick.**

Furlong and Salisbury (2003),**Best Practice Research Scholarships.** London: DFES.

Galloway, S. (2000). **Issues and challenges in continuing professional development. Continuous professional development: Looking ahead Proceedings of a symposium by the Centre on Skills, Knowledge and Organisational Performance.** S. Galloway. Oxford.

Grace,M (2001) Evaluating the training' British Dental Journal 191 (5)229-250

Gray, J. (2000). Causing Concern but Improving: A Review of Schools' Experience. London: DfEE.

Guskey, T. R. (1994). Professional development in education. In search of the optimal mix. Annual Meeting of the American Educational Research Association, New Orleans.

Guskey, T. R. (2000). Evaluating professional development. Thousand Oaks, Ca.,Corwin Press.

Hargreave, A. (1994). Changing Teachers: Changing Times, London: DFEE.

Harland, J. and Kinder.K, (1997). Teachers' Continuing Professional Development: framing a model of outcomes.British Journal of In-service Education 23(1): 71 - 84.

Harris, A. (2001). Building the capacity for school improvement. School Leadership and Management 21(3): 261–270.

Harris, A. (2002). Leadership in Schools Facing Challenging Circumstances,. International Congress of School Effectiveness and School Improvement, Copenhagen.

Harris, A. and Busher.H. (2000). Effective Subject Leadership: Final Report, Teacher Training Agency.

Hopkins, D. and Harris, A, (2001). Creating the Conditions For Teaching and Learning A Handbook of Staff Development Activities.

Joyce, B., and Calhoun,E (1998). **Models of Teaching: Tools for Learning**. Buckingham: Open University Press.

Joyce, B. and Showers, B. (1980) **Improving in-service training: The messages of research. Educational Leadership, 37, 379**-385

Joyce, B. and Showers, B. (2002) **Student Achievement Through Staff Development**. (3rd Edition) London: Longman.

Jones, N and Fear,N (1994) **Continuing Professsional Developmemt' Perspectives from Human Resource Professionals,Personnel Review 23(8) 49-60.**

.Kennedy, A. (2005) **Models of continuing professional development: A framework for analysis. Journal of In-Service Education, 31 (2), 235-250.**

Hustler and , D., McNamara, O., Jarvis, J., Londra, M., Campbell, A. and Howson, J. (2003) **Teachers' Perspectives of Continuing Professional Development: DfES Research Report No. 429, London: DfES.**

Knight, P. (2002).**A systemic approach to professional development: Learning as practice. Teaching and Teacher Education 18(3): 229 - 241.**

Little, J. (1993). **Teachers professional development in a climate of educational reform. Educational Evaluation and Policy Analysis 15(2): 129-51.**

Liven and Liven (1999) **Continuing professional development among educators:Predictors of participation in learning activities. Adult Education Quarterly, 49, 91-106.**

Mactear,H, and Schumacher,S,(2005) **A Report on the Award Bearing Inset Scheme,DFES review of the TTA'**

Maden, M. and Hillman.J. (1996). **Success Against the Odds. London, Routledge.**

McLaughlin, M and Talbert, L (1994**) Networks for Educational Change,Powerful and Problematic. Phil Delta Kappa,vol 73,pp 673-677**

Ministry of Education(1998) **Educating Our Future: National Policy on Education.**Lusaka: Zambia Education Publishing House.

Ministry of Education/USAID (2007) School Program of In-Service for the Term (SPRINT), A teachers' Guide for school based CPD,CHANGES 1,Lusaka.

Ministry of Education (2006**) A Teachers Guide For School Based Continuing Professional Development,**Lusaka:New Horizons Printing Press.

Ministry of Education (1991) **Teacher Education Guidelines. Lusaka: Ministry of Education.**

Muijs, R. D. and D. Reynolds (2002). **"Behaviours or beliefs: What really matters?" Journal of Classroom Observation. 37(4)**

Mujis,R and Lindsay P, (2005**), Evaluating Continuing Professional Development :Testing Guskeys' Model in the UK.**

Mwale K.K (2006) **Provision of Continuing Professional Development By Resource Centers In Selected High Schools Of The Copperbelt.** Lusaka: University of Zambia.

Ofsted (2000). **Improving City Schools. London, Office for Standards in Education.** London :Ofsted.

Ofsted (2006) **The Logical Chain:CPD in Effective Schools.** London :Ofsted.

Okafor, F, (1988) **Nigeria Teacher Education; A Search for New Direction.**Dimension Publishing Company,Enungu ,Nigeria.

Robson, C. (1993). **Real World Research: A resource for social scientists and practitioner-researchers.**Ltd Oxford, Blackwell Publishers

Ross Rolheiser, C.and Hogaboam-Gray, A. (1999) **Effects of collaborative action research on the knowledge of five Canadian teacher-researchers'. Elementary School Journal, 99,**

Sidhu S.K (1984**) Methodology of Researcn in Education.**New Delhi,Sterling Publishers Private Limited.

Smith, C. L. (2002). **Using continuous system level assessment to build school capacity. The American Journal of Evaluation 23(3): 307 – 319**

Wenger E. (1998) **Communities of Practice;Learning,Meaning and Identity.**Cambridge: Cambridge University Press.

Wood and Anderson (2003) **Towards the learning profession: identifying the characteristics of successful continuing professional development in schools. Paper presented at BERA Annual conference, Edinburgh, 11-13 September 2003.**

INTERNET SOURCES

Theteachernet website w.w.w.teachernet.gov.uk/professionaldevelopment.

7.0 APPENDICES

7.1 Appendix (i)

DOCUMENTARY EVIDENCE

Documents laid hands on were closely examined to identify the effectiveness of the management of SPRINT and its effects on teacher classroom practice and student learning outcomes. Documents analyzed were CPD record books, minutes for departmental and staff meetings, teachers' credit cards, annual work plans, DODI record sheets, SAA record sheets and SMARC record sheets.

Documents examined and comments

School A

(1) Annual work plan; this was not made available for examination.

(2) CPD record book; this was not available as well.

(3) Teacher CPD credit cards; had never been filled in.

(4) DODI record sheet; There was only one DODI recorded

(5) SMARC record sheets; these had up to date information. Almost all teachers indicated their attendance to SMARC.

(6) SIMON record sheets. These indicated visits by subject inspectors following up implementation of SPRINT.

(8) Subject Association record sheet; only one activity was recorded

(9) Staff meeting and departmental meetings minutes; were not available.

SCHOOL B

(1) Annual work plan; was well filled in with objectives, targets and estimates for costs projected.

CPD record book; activities concerning SPRINT had been consistently recorded.

(2) Teacher CPD credit cards; were not available.

(3) DODI record sheet; All DODIs were recorded accordingly.

(3) SMARC record sheet; these indicated teachers had been attending these meetings but the comments from high school teachers indicated they did not appreciate them much.

(4) SIMON record sheets; these indicated two visits by subject coordinator within a year.

(5) Subject Association Activities record sheet; only two activities were recorded.

(6) Staff meetings and Departmental meetings minutes; both sets indicated some discussions on CPD.

(7) The CPD record book indicated that most of the targets in the work plan were not met.

SCHOOL C

1. Annual work plan; was well filled in with objectives, targets and estimates for costs projected.

2. CPD record book; activities concerning SPRINT had been consistently recorded.

3. Teacher CPD credit cards; were not available.

4. DODI record sheet; All DODIs were recorded accordingly.

5. SMARC record sheet; these indicated teachers had been attending these meetings but the comments from high school teachers indicated they did not appreciate them much.

6. SIMON record sheets; these indicated two visits by subject coordinator within a year.

7. Subject Association Activities record sheet; one activity was recorded.

8. Staff meetings and Departmental meetings minutes; Staff meeting minutes did not indicate any discussion on CPD but minutes for departmental meetings had some discussions.

SCHOOL D

1. Annual work plan; was well filled in with objectives, targets and estimates for costs projected.

2. CPD record book; activities concerning SPRINT had been consistently recorded and most targets from the annual work plan had been met.

3. Teacher CPD credit cards; were not available.

4. DODI record sheet; All DODIs were recorded accordingly.

5. SMARC record sheet; these indicated teachers had been attending these meetings.

6. SIMON record sheets; these indicated two visits by subject coordinator within a year.

7. Subject Association Activities record sheet; only two activities were recorded.

8. Staff meetings and Departmental meetings minutes; both sets indicated some discussions on CPD.

SCHOOL E

Not a single document was analyzed as people in charge kept shifting the appointments on the pretext that they were new in the offices.

7.2 Appendix (ii)

QUESTIONAIRE FOR HEADS OF DEPARTMENT

INSTRUCTIONS: TICK THE APPROPRIATE ANSWER AND WHERE NECESSARY EXPLAIN.

Age ……..

Sex ……...   Female……… Male……..

Educational level

Certificate

Diploma

Advanced Diploma

Degree

Other (specify) …………………………

Name of the school …………………………….

What is the length in years of your teaching experience?

Above 20

15 - 19

10 - 14

5 - 9

Less than 4 ☐

How long have you served as H.O.D

Have you done any further full time training after starting work?

Yes ☐   No ☐

If the answer to question 6 is yes, was the training directly related to the subject you are teaching?

Yes ☐   No ☐

Did you receive any formal training to prepare you for the role of H.O.D

Yes   No ☐

If the answer is yes to the above, how long was the training? ……………….…..

PART II

How effective has the school programme for In-service for the term (SPRINT) been implemented in your department?

Very effective ☐

Moderately effective ☐

Not effective ☐

Not implemented ☐

How clear are the goals and objectives of SPRINT?

Very clear ☐

Not very clear ☐

Clear ☐

Not clear ☐

Never been explained ☐

Have you set specific goals and objectives of SPRINT for your department?

Yes ☐ No ☐

How often do you have SPRINT activities in a term?

Every two weeks ☐

Once a month ☐

Every two months ☐

Once a term ☐

Never ☐

Have you timetabled the C.P.D meetings?

Yes ☐ No ☐

If the answer is yes to the above, is the time table adhered to?

Not always ☐

At times ☐

Never ☐

If the answer to Q5 is no state reasons

....

....

....

Do you set objectives for every SPRINT activity?

Yes ☐ No ☐

Are the objectives achieved?

Yes   ☐   No   ☐

Are the objectives expressed in suitable behavioral terms i.e. so the changes in behavior on part of the teachers can be observed or measured at the end?

Yes   ☐   No   ☐

Has sufficient time been allowed for SPRINT?

Yes   ☐   No   ☐

If the answer is No to the above, give suggestions

....

....

....

....

PART III

Do you maintain an up –to- date record of C.P.D activities for all teachers in the departmental C.P.D record book?

Yes   ☐   No   ☐

Do you keep an up- to- date record of In-service credits earned by the teachers in the C.P.D record book?

Yes   ☐   No   ☐

How often do you discuss the C.P.D credit system with the teachers?

Always   ☐

Often   ☐

Sometimes   ☐

Rarely   ☐

Never

Are the teachers supportive in the SPRINT activities?

Very supportive ☐

Supportive ☐

Not supportive ☐

Unconcerned ☐

Supportive at times ☐

Do all teachers actively participate in lesson demonstrations?

Yes ☐   No ☐

If the answer to 5 is No, what are the reasons for apathy?

....

....

....

....

How do you hope to get the involvement of all teachers?

....

....

....

....

How often do you conduct follow- up activities by observing teachers lessons?

Very often ☐

Often ☐

Rarely ☐

At times ☐

Never ☐

Do you chair meetings where you discuss the following?

Departmental C.P.D record book   Yes ☐ No ☐

Schemes and records of work and lesson plans   Yes ☐ ☐

Lesson demonstrations   Yes ☐ ☐

Schedules for the school C.P.D monitoring   Yes ☐ ☐

Preparation for DODI   Yes ☐ ☐

Report on the subject meetings at the Resource Center Yes ☐ ☐

Do you report to the Head teacher on a fortnightly basis on C.P.D activities in the department required? ☐

Yes   No

Is the Head teacher supportive in the C.P.D activities?

Very supportive ☐

Supportive ☐

Not supportive ☐

Not Concerned ☐

State the support you would require from your Head teacher?

....

....

....

....

Do you work closely with subject associations and encourage teachers to be active members of subject associations?

Yes ☐   No ☐

Do you work closely with In-service Coordinators through Teacher Resource Centers (TRCs) at provincial, district and zone levels?

Yes ☐   No ☐

Does the subject coordinator visit your school twice a term as required?

Yes ☐   No ☐

How often do you interact with other schools in your cluster?

Very often   ☐

Often   ☐

Rarely   ☐

At times   ☐

Never   ☐

Are the identified problems in subject areas the same with other schools?

Yes ☐   No ☐

Are the problems exposed necessarily significant ones?

Yes ☐   No ☐

Has SPRINT benefited you personally?

Yes ☐   No ☐

State ways in which SPRINT has benefited you?

....
....
....
....

State if there are any problems you have encountered in SPRINT activities.

....
....
....
....

Suggest ways in which SPRINT can be improved and sustained.

....

....

....

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....

2 3.State how SPRINT has benefited the teachers.

7.3 Appendix   (iii)

TEACHERS' QUESTIONAIRE

INSTRUCTIONS: TICK THE APPROPRIATE ANSWER AND WHERE
NECESSARY EXPLAIN.

PART 1

Age ……..

Sex ……..   Female……… Male……..

Educational level

Certificate

Diploma

Advanced Diploma

Degree

Other (specify) …………………………

Name of your school ……………………………

What is the length in years of your teaching experience?

Above 20

15 - 19

10 - 14

5 - 9

Less than 4 ☐

Have you done any further full time training after starting work?

Yes ☐ No ☐

If the answer to question 6 is yes, was the training directly related to the subject you are teaching?

Yes ☐ No ☐

Do you belong to any subject association?

Yes ☐ No ☐

PART II

How effective has the school programme for In-service for the term (SPRINT) been implemented in your department?

Very effective ☐

Moderately effective ☐

Not effective ☐

Not implemented ☐

How clear are the goals and objectives of SPRINT?

Very clear ☐

Not very clear ☐

☐

Clear

Not clear   ☐

Never been explained   ☐

How often do you have SPRINT activities in a term?

Every two weeks   ☐

Once a month   ☐

Every two months   ☐

Once a term   ☐

Never   ☐

Do you take part in suggesting topics for discussion?

Yes   ☐   No   ☐

Do you volunteer to prepare and demonstrate a lesson on a proposed topic?

Yes   ☐   No   ☐

If the answer to Q5 is No, give reasons

....

....

....

How often are you present at lesson demonstration meetings?

Always   ☐

Often   ☐

Sometimes   ☐

                             ☐

Rarely

Never   ☐

How relevant do you find SPRINT to your teaching?

Extremely relevant   ☐

Not very relevant   ☐

Relevant   ☐

Irrelevant   ☐

Waste of time   ☐

In your opinion has attending SPRINT increased your skill in teaching?

Yes   ☐   No   ☐

Has SPRINT provided opportunities for useful discussions with your colleagues? ☐

Yes   ☐   No

Have you implemented any ideas arising from SPRINT?

Yes   ☐   No   ☐

If the answer is yes to the above, give examples of ideas and if No state why you have not implemented.

....

....

....

....

Has SPRINT improved student learning?

Yes   ☐   No   ☐

If yes to the above, what is the evidence of improvement?

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

…………………………………………………………………………………

27.Has SPRINT improved the following qualities in you?

(a) Confidence   yes_____ No_____

(b)Motivation and Morale. Yes_____ No

(c) Self esteem   Yes_____ No_____

(d) Enthusiasm   Yes____ No_____

(e) Improved self evaluation. Yes____ No____

(f) Creativity   Yes_____ No____

(g) Willingness and ability to make changes.Yes__No___.

(h) Understanding of good and successful practice.Yes__No___.

(i) Planning and use of a wider range and variety of learning activities and strategies. Yes_____ No_____.

(j)Greater subject knowledge. Yes_____ No____

(k) Willingness to continue. Yes_____ No_____.

(l) Initiative. Yes_____ No_____.

(m) Career progression. Yes____ No_____.

(n) Collaboration. Yes_____ No_____.

(o)Teacher-pupil relationship

(p) Commitment to teaching Yes_____ No_____.

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28. Do SPRINT activities disturb lessons?

Yes   ☐   No   ☐

29. If yes to the above, suggest ways of correcting the situation.

……………………………………………………………………………………

....

....

....

PART III

Do you ensure that your C.P.D credit points are recorded by the H.O.D in the Departmental C.P.D record book?

Yes ☐ No ☐

How many credits have you attained so far?

☐ ☐

Have you attained any certificate?

Yes ☐ No ☐

☐
☐

How often does your H.O.D follow up SPRINT activities in the classroom?

Always ☐

Often ☐

Sometimes ☐

Rarely ☐

Never ☐

How often does your H.O.D discuss the C.P.D credit system with you?

Always ☐

☐

Often

Sometimes   ▭

Rarely   ▭

Never   ▭

How often does your H.O.D call for lesson demonstration meetings?

Always   ▭

Often   ▭

Sometimes   ▭

Rarely   ▭

Never   ▭

How often does your H.O.D observe lessons?

Very often   ▭

Often   ▭

Sometimes   ▭

Rarely   ▭

Never   ▭

How often are you visited by subject coordinators?

Very often   ▭

Often ☐

Sometimes ☐

Rarely ☐

Never ☐

State the problems you have observed with SPRINT?

....

....

....

....

Give suggestions on how to improve SPRINT.

....

....

....

....

Do you think SPRINT should be promoted or teachers should just be sent to colleges?

....

....

....

....

12 .Indicate ways in which SPRINT has benefited you as a teacher?_____

7.4 Appendix   (IV)

INTERVIEW GUIDE FOR SUBJECT COORDINATORS

How long have you served as subject Coordinator?

Do you visit each school twice a term as required?

What activities take place during your visits?

Do you discuss with school Heads C.P.D in general?

Do you discuss departmental issues related to a subject with HODs?

What are the common issues that you discuss?

Do you hold open discussions with teachers within the department following a presentation?

Do you chair subject meetings at the resource center?

In your opinion, has SPRINT succeeded in high schools?

Give reasons to your answer in above?

What problems do you encounter in coordinating SPRINT?

What improvements do you wish to be made to make SPRINT more meaningful to both teachers and pupils?

What do you consider to be indicators of classroom improvement?

Do you think teachers who pass through SPRINT become better teachers?

If yes to above, in what ways?

7.5 Appendix (v)

INTERVIEW GUIDE FOR HEAD TEACHERS

Do you chair the two C.P.D meetings each term as required?

Do you support SPRINT?

If so, in what ways?

Do you follow up the Departmental Heads to see if they conduct the C.P.D activities?

Do C.P.D activities disrupt the operations of school?

If they do, how would you like them done?

How pupils are kept busy when teachers are attending C.P.D activities?

Has the school affiliated to subjected associations?

Who pays the individual subscriptions for the subject association?

Does SPRINT drain on the finances of the school?

Has SPRINT improved Teacher Performance and Student learning? If so, what are the indicators?

Do you wish to promote SPRINT or would you prefer to send teachers to colleges for refresher courses? Give reasons

7.6 Appendix (VI)

INTERVIEW GUIDE FOR ZONE AND SCHOOL INSET PROVIDERS

1. Have you received any training to prepare you for this role? If so, are you satisfied that it enables you carry out your duties efficiently?

2. Do you know your job description?

3. Are you in charge of planning CPD activities in your zone/school?

4. Do you take part in making budgets for SPRINT?

5. Do you follow up the Departmental Heads to see if they conduct the C.P.D activities?

6. Do C.P.D activities disrupt the operations of school?

7. If they do, how would you like them done?

8. How are pupils kept busy when teachers are attending C.P.D activities?
-
9. Does SPRINT drain on the finances of the school?

10. Has SPRINT improved Teacher Performance and Student learning? If so, what are the indicators?

11Do you wish to promote SPRINT or would you prefer to send teachers to colleges for refresher courses? Give reasons

12. In what ways has SPRINT benefited the teachers?

7.7 Appendix (vii)

OSERVATION SHEET

Whoever the observer, the instrument should be discussed with the teacher both before and after the lesson.

Put a tick if you consider that the skill has been effectively practiced, and a cross if the skill needs to be developed, or N/A if the skill is inappropriate for the observed lesson.

Basic skills should be present in all lessons.Additionsl skills will be used in certain lessons as appropriate.

Each tick scores one mark.

Name of Teacher_____ TS NUMBER_____

LESSON OBSERVED_____

OBSERVER 1_____   OBSERVER 2_____

THE TWELVE SKILLS

		OBSERVER 1	OBSERVER 2
Basic skills present in most lessons	Planning lessons		
	Planning the chalkboard		
	Organizing group work		
	Making or using teaching aids		
	Questioning for		

	teaching and learning		
	Encouraging communication		
	Reflecting		
ADDITIONAL SKILLS PRESENT AS APPROPRIATE	Exploiting text books		
	Testing for teaching and learning		
	Using the local environment		
	Using songs, games and rhymes		
	Drawing		
	TOTAL SCORE		

FINAL SCORE = OBSERVER 1+ OBSERVER 2 =

$$\frac{}{2}$$
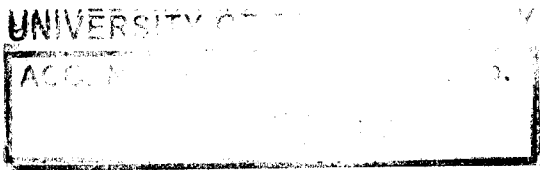
7.8 Appendix (viii)

Pupil Tick list for Attributes of an Effective Teacher

In the following table tick the quality that you think makes a teacher effective in his/her teaching.

QUALITY	Very Important	Important	Not Important
Planning Lessons			
Organising Group Work			
Making and Using Teaching Aids			
Asking Questions About Lesson			
Encouraging Communication			
Using Text Books			
Testing After Lesson			
Reflecting Over Previous Lesson			
Using Local Environment to Teach			
Using Songs, Games and Rhymes			
Use of Chalkboard			
Drawing			

(2) After you have ticked, in groups of five (5) discuss why you have ticked on the qualities you think makes an effective teacher.