Teacher Professional Development: Experiences of Three Selected African Countries and the Lessons Based Chinese Practices

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Abstract
The purpose of this paper is to review teacher professional development in three African countries: (Tanzania, Ethiopia and Sudan). As teacher professional development has a wide sense in modern trends, evolving teacher lifelong learning, from pre-service up to retirement; so it would be difficult to cover the topic in this wide sense. Therefore the paper is more focused on in-service teacher training. The paper contains three parts: The first part is an overview of teacher professional development in general; its significance, modern trends and challenges. The second part is a review of the experiences of the three selected countries in teacher professional development; focusing on teacher education, forms of teacher professional development and the challenges facing the three countries in teacher professional development. The third part is a conclusion providing some policy recommendations for improving teacher professional development in the three countries and overcoming some of the challenges, based on the Chinese experiences; as China’s experience in reform of teacher education and teacher professional development is an innovative and quite exceptional.

1.0 Introduction
Education has a fundamental role to play in personal, social, economical and political development. While education is an ongoing process of improving knowledge and skills, it is also a means of bringing about personal development and positive relationship among individuals, groups and nations and reducing power and wealth disparities both within and among countries. It is a principal means to foster a deeper and more harmonious, war or conflicts.

Although education alone is not a miracle cure or magic sound formula opening the door to a world in which all ideas will be attained, a government needs a sound policy for education and the means to implement it and without considering teachers professional development it is highly impossible to address or achieve all these issues and in order to maintain the quality of education teachers are the central actors of this issue due to this teachers professional development is crucial for sustainable development of the country in general and for personal growth in particular.

2. General overview of Teacher professional development (TPD)
Teacher professional development has been defined in a number of ways, providing different emphasis on a range of issues inherent to its complex nature. So teacher Professional development can be defined as “Deepening teachers’ understanding about the teaching/ learning process and the students they teach and must begin with pre-service education and continue throughout a teacher’s career”.

Effective teacher professional development involves teachers both as learners and teachers, and allows them to struggle with the uncertainties that accompany each role. The definition stresses on the view that teachers play both as teachers and as learners themselves. It also indicates that the dual role teachers’ play extends over their career life and is one of the means to overcome the various challenges of teachers in their profession. Teachers are learners on their own professional journey and teacher professional development is an ongoing and continuous process throughout a teacher’s career. Teaching is, essentially, a learned profession as well as learning to teach is a lifelong developmental process that involves the continual deepening of knowledge and skills.

3. General Characteristics of Modern Teacher professional Development
Many Writers on the issues of teachers’ professional development has suggested a number of Characteristics that describe the modern approach to teacher professional development. So the main characteristics are listed below (Villegas – Reimers, 2003, p 13-14).

• Professional development need to be based on constructivism theory of learning, that teachers are always and at any stage of the process considered as active learners.
• Professional development need to be considered not as a one-time event but rather as a long-term process whereby teachers learn from series of learning events and experiences
• Effective professional development is context – specific process and need to be highly related to the teachers’ day-to-day work life and school settings. The focus on school- based development activities provide a much better development opportunities and the most successful teacher development
opportunities are ‘on-the-job learning’ activities such as study groups, action research and portfolios.

- Professional development is considered as a sustained culture building process. Such a process requires trusting, respecting and empowering the teachers themselves. Likewise, the professional development activities need to be conceived not as simple skills or competence acquisition activities but as a part of the longer cultural change process.
- Professional development provides opportunities for teachers to acquire newer knowledge, skills and experiences based on their prior knowledge base upon entering in to the profession. The newer perspective conceives teachers as reflective practitioners who build newer understanding, practices and expertise through constant reflections.
- Professional development activities are more of collaborative activities among teachers and others. Therefore, teacher professional development is mostly effective through interactions among teachers, between school administrations, parents and other members of the society. So the social nature of learning and the importance of collaboration with others are considered as one of the salient characteristics of professional development (Jarvis, 1987).

4. Factors affecting teachers’ professional development
Most researchers classified the various factors that influence teachers’ professional development into three groups: context, process and content.

a) Contextual Factor
The contextual factors in the teacher professional development include those factors related to the wider perspective of the societal, organizational, school work culture, prevailing systems of learning and development and others. This factor in general address the question of why, where and when the learning and professional development takes place. These contextual factors influence teachers’ learning and development and need to be well understood and considered while planning their learning and development activities.

b) Process Factors
The Process factors are related to the ways various learning and development activities take place. It is centered on the question how these development activities are designed, executed, and assessed in terms of the achievement of their intended goals. Thus the learning process should be considered as a social process where learners not only engage actively in the process but also are in charge of the direction and control of the process.

c) Content Factors
The Content factors refer to the new knowledge, skills, attitudes and experiences that teachers acquire both in their field of studies and the pedagogical aspects. These factors focused on the question of what of the teachers’ learning and development. Arnold (2005a) argued that learning in preparation for a profession requires not only of developing technical knowledge and skills (specialized competences), but also learning and working techniques (methodological competence) and the capability for team work and communication (Social and leadership competence). He asserted that the development of these competences is interdependent and could not occur in isolation from one another.

5.0 Teacher professional development models
There are different teachers’ professional development models that are used in educational contexts. These models or techniques may be appropriate in particular circumstances and may not be effective in other situations. Often the use of a combination of these methods may provide a wider opportunity for learning and teacher professional development. The characteristics of the context, the development goals, and other enabling factors influence the choice of professional development models and techniques. Some of the teacher professional development models based on individual, group and organizational level are presented below.

Organizational partnership models of teacher professional development
- Schools’ networks
- Teachers’ networks
- Distance education
- Professional development Schools
- Other university-school partnerships
- Other inter-institutional collaborations

Small group or individual models of teacher professional development
- Case-based study
- Self-directed development
- Co-operative or collegial development
- Observation of excellent practice
- Teachers’ participation in new roles
- Skills-development model
• Reflective models
• Project-based models
• Portfolios
• Action research
• Use of teachers’ narratives
• Generational or cascade model
• Coaching/mentoring
• Clinical Supervision
• Students’ performance assessment
• Workshops, seminars, courses, etc.

6.0 Teacher education and development in Tanzania
6.1 Education system in Tanzania
The Education System in Tanzania is structured along the following order:2-7-4-2-3+ implying 2 years of pre-primary education, 7 years of primary education, 4 years of secondary Ordinary Level, 2 years of secondary Advanced Level and a minimum of 3 years of university education(ETP,1995).

In Tanzania, just like many other developing countries in Sub-Saharan Africa, teacher training is divided into two categories: These are pre-service and in-service teacher training.

6.2 Pre-service Teacher training
Pre-service teacher training is meant to prepare a person for a teaching career. The training enables future teachers to comprehend educational theories, education philosophy, teaching methodologies and educational ethics whilst gaining social skills, knowledge and skills in different subjects with which to start a successful teaching career. A teacher is expected to master his or her area of specialization to be in the best position to help learners (Rebecca, et al undated).

Teacher training is currently offered through three clusters:

**Grade “A” teachers.** Teachers who are trained to teach pre-primary and primary school students. Normally, teachers who are eligible are supposed to form four graduates (ordinary level secondary education certificate). Training lasts for two years and emphasizes teaching methodologies.

**Diploma teachers.** Training for teaching in secondary schools, although most will also teach in primary schools. Normally, employment will follow completion of a teacher training college course from which six graduates are formed (advanced level secondary education certificate). The Diploma in Education training lasts for two years. Due to the existing shortage of teachers in the country, however, diploma trainees are currently studying theories of education in college for one year only with the remaining year spent in schools as part of Block teaching practice. Teacher trainees' curriculums at this level emphasize teaching methodologies and ethics.

**Degree teachers.** The highest level of teacher education. Normally, degree holders are trained in order to teach in secondary schools and teacher training colleges. Training should take three to four years, but the demand for teachers means that, training is currently a maximum of three years. Teacher training at this level varies in specializations: teachers training as college tutors specializing in teaching methodologies and education psychology and teachers training to teach in secondary schools learning many academic subjects but relatively fewer teaching methodologies.

Following liberalization policies in 1994, individuals and private agencies were encouraged to invest in education to complement government efforts. A number of private education institutions and colleges have been established in the country at all levels of the education system, but with limited enrolment capacity. Teacher training is therefore offered in both government and non-government colleges.

6.3 In-service Teacher training
This training is given to teachers who are already working. The aim of in-service teacher training is to improve the quality of teaching among teachers, as well as acclimatizing new teachers so that they can carry out effective teaching and learning. Without this training, teachers will be outdated, are unlikely to cope well with changes and lose their ability to work effectively and efficiently. Most of the time, in-service training is offered through short courses, seminars, workshops, meetings and other special training. The training is offered by the government and other education stakeholders within or outside the country.

6.4 Challenges facing teacher development in Tanzania
Teacher Preparation is faced with a number of challenges. One of the major challenges is changes in the training duration and the subsequent dilemma as to whether the focus of the curriculum should be on the subject matter (content) or pedagogy (methodology) or both (Rebecca, et al undated).

In Tanzania initial training has traditionally consisted of two years study in a Teacher Training College,
with relatively little time given to teaching practice in schools, but the capacity of colleges to effectively supervise teaching practice have often been limited due to funding constraints. This situation was exacerbated by the rapidly increasing demand for new teachers after the expansion of pupil enrolment as a result of PEDP and SEDP.

More recently, there has been an attempt to increase throughput and minimize costs by making the second year of teacher training school based (actual teaching in schools). However, this presents a major challenge in terms of the effectiveness of the supervision of the school-based component in the second year and suggests the need for more flexible approaches to pre-service training.

Another challenge is to do with the location of in-service training centers. Nearly all teachers’ in-services training centers are positioned in the urban areas. This makes the majority of teachers dwelling in rural areas find difficult to attend the training as a result they constantly become less updated with new concepts, innovations and paradigms currently used in education cycle to improve education quality.

Another challenge is the need for quantity at the cost of quality. Reports on the implementation of the PEDP suggests, with the introduction of primary education development plan reforms, there has been an enormous demand to increase the number of teachers that could go with fast growing enrolment rate in primary schools. As the result of this, the focus in teacher training and development has become the production of massive number of teachers with little care on content or pedagogic capacities of the teacher (Nkumbi, Warioba & Komba, 2006).

7.0 Teacher professional development in Sudan

7.1 History and background of education in Sudan

Education in Sudan has a long history of over twenty eight centuries. At that time our ancestors had their own way of writing which was different from ours now, they even knew the Egyptians writing (Hieroglyphics) at that time, but formal education at that time was not affordable to all people, it was restricted to the royal families and some other elites. But education in its modern form was known in Sudan during the era of the dual reign of (Turkey and Egypt) in Sudan (1805), when the first formal school was established in Khartoum the capital. Beside the formal form of education there was the religious education, which was and still very important in the transmission of culture and preaching religion among the community members.

With the beginning of the British colony period (1889) education in Sudan witnessed a great improvement in terms of modernization and school expansion, almost there was a school in every big town but unfortunately education was directed to serve the colonial interest rather than educating the Sudanese citizens. After the country independence (1956), up to late 1980s, no big change happened to the education system in Sudan. By early 1990s, the beginning of the recent government, education in Sudan witnessed great change and improvement in all aspects. The holistic vision of the current Sudanese education philosophy aims at creating a unified Sudanese nation which respects, admires all its Arab and African components and its religious, cultural and ethnic components, commits and be aware to direct this diversity towards national unity as a fateful option, supports this diversity and enriches its intellectual and material energies in order to build a developed, urbanized, unified and safe nation that endeavors to achieve its far objectives and goals, (Federal ministry of education, 2007).

7.2 Education system in Sudan

a) Basic education

Pre-School: It lasts for (2) years children age group (4-6) and most of the kindergartens in the capital (Khartoum) and some other big towns are private.

Primary level: It lasts for (8) years and the pupils’ age group (6-14). It is compulsory.

Secondary level: It lasts for (3) years and the student’s age group (14-17) and the secondary level has two tracks; the academic track and the vocational track.

b) Higher education

Students enroll higher education at age (17), they spend between 4-6 years according to the college system. Types of institutions of higher education are the following:

- Universities of the State.
- Colleges and higher institutes of the State.
- Private and foreign Universities, colleges and higher institutes

The total number of higher education institution is (106), among these universities there are (26) universities offering bachelor, master and PhD programs, (ministry of higher education and scientific research, 2009). Arabic language is the medium of instruction at all levels of education, with emphasis on studying some foreign languages, such as English, Chinese and French.
7.3 The current situation of pre-service teacher preparation in Sudan
In Sudan since the last decade, much criticism has being directed towards the institutions of teacher education; because of the poor quality of the teachers they are producing. Most of these institutions are preparing teachers based on the traditional method of teacher preparation, focusing on inadequate content of subject matter, ancient theories of psychology of learning and teaching pedagogy and then a short period – two months – of teaching practice at schools.

This teaching practice is lacked of a well organized and accurate supervision of both the educational institutions and the schools, because of the weak co-ordination between the two. As a result the graduate teachers produced by these institutions are of poor quality, they are lacked of the adequate knowledge of the subject matter, especially those who studied languages. Those teachers are also lacked of knowledge on the current pedagogies and teaching methods, add to these their poor knowledge in the application and use of technology in teaching and learning process, which is very essential for the 21st century teacher.

Beside all these, those new teachers are also lacked of the sufficient and effective guidance in their induction phase. When a new teacher starts his/her teaching practice, he/she needs guidance, help and encouragement from the senior teachers and the school head teacher; but unfortunately he/she rarely finds. All the above mentioned factors together, have a negative impact on teacher quality; which is considered as a key element in improving students’ achievement.

Great and heated debate has been taking place for years in the country, concerning reconsidering the role of the education institutions.

Many studies have been carried out on the evaluation of the quality of the educational programmes offered by these institutions, and most of these studies have recommended reform to these programmes. Some educators went so far and argued about changing the current system of teacher preparation adopted by these institutions, which is the concurrent one; with the consecutive system; which was used before the emergence of faculties of education within comprehensive universities, as a result of the revolution of higher education (1990). Supporters of changing the system think that the consecutive system is better in qualifying the teacher in the subject matter.

7.4 Teacher professional development in Sudan
The prominent form of teacher professional development in Sudan is organizing training courses for teachers during summer vacations; these training courses usually last for between two weeks in general, and six months as special training on teaching methods, psychology of education and educational pedagogy for teachers holders of non-educational degree. The courses are organized by ministries of education at states level, with coordination with higher education represented in colleges and faculties of education, because each state is responsible for the professional development of its teachers.

In the early 2000s, the federal ministry of education adopted a new policy for in-service training for teachers through open learning. This was a kind of cooperation with Open University of Sudan which has many teacher training centers in different states of the country. The Open University organizes short courses during summer vacations also, and it broadcasts lectures on radio and distributes recorded lectures on tapes for teachers. This policy has contributed much in bridging the gap in training opportunities between teachers at cities and towns and teachers at rural areas.

In spite of these efforts paid by the ministries of education in teachers training, yet much more effort is needed concerning teacher professional development, because of the total number of teachers in Sudan (142,041), according to (the federal ministry of education, 2008), only (65%) are trained, still there are (35%) of the teachers are untrained.
7.5 New reform for teacher training

According to the presidential decree No (12,) 2001, the federal ministry of education is responsible for education planning and formulation of policies, with coordination between educational authorities at both federal and state level; this including preparation and development of curricula, literacy, adults and special education and coordinating the training of teachers and educational administrators, with higher education institution and the states ministries of education, (WDE, 2006). So the federal ministry of education is the direct responsible organization for teacher professional development at both the federal and the state level. In 2007 the federal ministry of education started to take actions for reform in teacher professional development as a part of the country 5 years strategy plan. But again for the lack of the financial resources, the plan is not being well implemented.

The following table shows the new plan for reform in teacher training in Sudan

7.6 Challenges facing teacher professional development in Sudan

The first challenge facing teacher professional development in Sudan is lack of financial resources, one of the biggest challenges that face teacher professional development is the lack of sufficient budget; the amount of money allotted to teachers training is insufficient, especially when the states ministries are responsible for training their teachers, in terms of financial issues and all other things. Some states or actually most of the states are poor; therefore their ministries of education have no good financial resources for teachers training.

Another challenge is lack of diversification of professional development forms: the federal ministry of education focuses much on short courses and workshops, which are usually theoretic, fragmented and do not provide practical solution for problems facing teachers in classroom.

Also low motivation of teachers is one of serious challenges facing teacher professional development, and the success of the whole profession, is teachers’ high motivation. Teachers seem to be unsatisfied with the idea of taking their holidays on which they relax and get rid of pressures of the hard work for the whole year.

According to modern trends in teacher professional development, the ideal situation for teacher professional development is to be organized within workload time, not in teacher free time, (Fredriksson, 2004, p12). In addition, no rewards or encouragement of any kind given to teachers when they finish the training session, and this makes the teachers unwilling to attend these courses.

Moreover, the teaching profession is presently not so convincing enough to attract talented young people, because of the low salaries paid to teachers; as a result most of those who join teaching profession are lower achievers; they failed to get good marks at high school, which enable them to join other faculties like medicine or engineering, which require high marks, so they are already lack of high motivation.

8.0 Teacher professional development in Ethiopia

8.1 Education System in Ethiopia

The current educational structure consists of eight years of primary education followed by four years of secondary education. The primary education has two cycles, first cycle (grades 1-4) and second cycle (grade 5-
The secondary education has also two cycles. The first cycle is the general secondary education (grade 9-10) which leads to the end of the general education for all students. Students who complete grade 10 will sit for national general secondary education certification examination. The grades 11-12 constitute the second cycle of the secondary education. Students who passed the national exam with higher academic achievements would enter to the second cycle of the secondary education as a pre-University education for future enrolment into the higher education institutions. The students who are not enrolled in the preparatory secondary education would join the TVET programs which offer from one to three years of technical and vocational training in various fields.

8.2 The objectives of Teacher Professional Development in Ethiopia

The overall objective of the Teacher professional Development program is to raise the achievement of students in Ethiopian schools and higher education institutions. The specific objectives of the teacher professional development are to:

a) Support teacher capacity to teach effectively using appropriate new student-centered and problem-solving approaches according to the active-learning-based curriculum that was introduced in 1994.

b) Improve teachers’ subject-matter knowledge based on the content of the curriculum and the teaching approaches which require teachers to engage students in the development of higher-order thinking skills.

c) Help teachers develop more positive attitudes, more cooperative approaches to their work at the school level, and strengthen professional identity.

d) Introduce the idea of reflective practice and action research through which teachers studied their practice to improve it.

e) Promotes teachers to recognize their work as a professional by providing new Opportunities for growth, exploration, learning and development (Villegas Riemers, 2003).

8.3 Categories of teacher professional development in Ethiopia

Though there are different types or models of teacher professional development but the most commonly used models in Ethiopia is presented below:

8.3.1 Pre-service teacher professional development

In general, to discuss Ethiopian teacher professional development it is better to categorized in two parts:

1. Primary to junior school teacher professional development
2. Senior secondary school teacher professional development

8.3.2 From primary school to junior teacher professional development

In the case of Ethiopia, primary to junior teacher professional development in case of pre-service is managed by the regional bureau officers, where they are found in the region. And the college or the institution also they are responsible for the regional officers rather than minister of education at higher level. So in my country, in Ethiopia there 14 provinces and under in each province there are many colleges or teacher training institutions for junior and primary school teachers. The number of the institutions or colleges may vary in different province based on the number of people which lived in each province. Even though, there many colleges or institutions in different provinces the way of teacher professional development system are the same in every province of the country.

Candidates after completing their primary, junior (grade 1-8) and secondary school, (grade 9-10), they set for General Secondary Education of Certificate Examination (EGSECE) is delivered to streamline students into Academic (College preparation) and Vocational and Technical schools based on their results. After having their examination, students who met the standards or criteria the will have good opportunity to join teacher training college, and they assigned to the teacher training college in their respective province teachers college. After they are admitted by teachers college, before starting the training students have got a chance to choose the subject they would like to study based on their interest for their future career based on their results which scored in EGSECE.

During the training session, the students take both academic and professional courses, that enables them comprehend educational theories, education philosophy, teaching methodologies and educational ethics, social skills, knowledge and skills in different subjects with which to start a successful teaching career. But during the training session the emphasis or special attention is paid for academic subjects than professional courses and during the training session students under go for practicum or teaching practice to a certain months, the duration may vary from college to college.

Concerning to certification, upon the completion of the training students awarded a certificate that
problems, discussion concerning how to use different types of teaching methodologies in different subjects. The process that school teachers to enhance their professional knowledge and their day-to-day learning-teaching.

Both academic and pedagogical courses but the emphasis is given for academic subjects than pedagogical matter contents, sharing teaching experience each other, doing action research which related to classroom interaction like their major fields, what is currently done is, students took module and read by them and at the end they will have assignments and written examinations from the module for the final grade of the students.

8.3.3 Senior secondary school teacher professional development

In case of Ethiopia secondary and senior secondary school teacher professional development universities have got high responsibility. Currently, in Ethiopia we do have 22 universities with the exclusion of primary school teachers training college. These Universities unlike teacher training college for primary school are managed by the Federal Ministry of Education at higher level. Pertaining to the distribution of universities, it may vary in different provinces according the number of the population in each province that has. Even if there many universities in different provinces the mechanism of handling every activity across each university are almost the same, since they governed by the ministry of education at higher level.

Concerning duration, the duration takes one to three years consecutively. During the training session students learn both academic subjects in their field of study and professional courses. But like junior and primary school teachers much attention is paid for academic subjects than professional courses. During the training session undergo for teaching practice for a various months, the duration is not the same in all universities. During this time like primary school teachers, trainees engaged in observation for certain days while classroom teachers are teaching in class in their major area then trainees take the position of the classroom teacher for a certain day.

Regarding to certification, by the time of completion of the training students awarded a diploma certificate, which notifies that, they are capable to teach secondary and senior secondary school students in their field of study in different senior secondary schools in the country. However, having the certificate does not mean that they are employed as soon as rather there is a competition among their colleagues from different universities. But if there is a scarcity of teachers in their field of study they will have good access to employed immediately otherwise not and sometimes outstanding students in different field of study assigned to teach in higher education like in teachers training college and in the university.

8.4. In-service teacher professional development

But the summer (or Kiremt) arrangement is basically designed to upgrade the qualifications and at the same time for promotion for diploma and degree holders of primary and secondary school teachers respectively. A six year-summer session is needed to complete a bachelor’s degree, pertaining to the training, teachers are going take both academic and pedagogical courses but the emphasis is given for academic subjects than pedagogical courses, even students are not going to take pedagogical courses in face to face interaction like the academic subjects, what is done is, they are going to take in modular system.

On the other hand, diploma program takes only three consecutive summers. Regarding to the training like degree holders they are going to take both academic subjects in their major area and pedagogical courses. Greater attention is given for their major area, even they are not going take professional courses in face to face interaction like their major fields, what is currently done is, students took module and read by them and at the end they will have assignments and written examinations from the module for the final grade of the students result.

8.4.1 School Based Teacher Professional Development

In Ethiopia this are also another mechanism of teacher professional development at school level which is supported by nongovernmental organization like Basic Education system overhaul (BESO) and Teacher Education system Overhaul (TESO).

School based TDP is the type TPD which is given only in a particular school among teachers by themselves. For example some of activities in school based professional development like mastering subject matter contents, sharing teaching experience each other, doing action research which related to classroom problems, discussion concerning how to use different types of teaching methodologies in different subjects considering the school environment.

Regarding to the duration of the time the arrangement is determined by school principal and other teachers in the school. Generally, school based teacher professional development is a kind of learning-teaching process that school teachers to enhance their professional knowledge and their day-today learning-teaching activity in the school.

8.4.2 Cluster based teacher professional development

This also the part continues professional development which similar to school based learning. The difference is
that in school based TPD all activities done by school teachers with their principal in that particular school but, cluster base TDP is among schools from different, four or five schools are assigned together by the district officers. Here teachers from different schools come together and sharing their school experiences like: the way how to handle students in the classroom, how to use active learning methods in teaching-learning practices, mechanisms how to resolve classroom problems by using action research methods, and discussion about content of subjects that develop their knowledge of the course they teach to teach effectively.

Moreover, after sharing their experience, among the best from different schools will be taken as a model for other schools to enhance every activity in their schools. And this kind of teacher professional development has a number of benefits like; enhancing frequent use of active learning approach, creates collaboration with teachers to learn and share experience from different school, promotes student learning, and develop their communication skills...

8.4.3 Workshops and seminars- Are also other ways of teacher professional development models.

8.5 Some of the Challenges of the Teacher professional development

The ministry of education has conducted a number of assessments at country level in 2008 and cited the major challenges for Ethiopian teacher professional development:

- Limited resource and low infrastructure
- Low expectation towards teaching profession by the society
- High number of students per class
- Absence of continuous assessment techniques
- Employing poor methods of teaching
- Entering to the teaching profession without background knowledge and interest
- Very limited in-service teacher training in terms of time
- In conducive school environment

9.0 Comparison analysis

From the above review of teacher professional development in Tanzania, Ethiopia and Sudan, we notice that almost the three countries share big similarities in terms of models of teacher professional development. In the three counties the dominant forms of teacher professional development are: short courses, seminars, workshops and meetings. However in Ethiopia there are cluster based and school based teacher professional development, these two forms are not used in Sudan and Tanzania.

In terms of challenges facing teacher professional development in the three countries, it also seems that there are little disparities among the three countries, but almost they share similar challenges, which can be summarized in the following points:

1- Lack of financial resources and infrastructures
2- Lack of coherent and integrated programmes
3- Lack of continuity for the training programmes (fragmented)
4- Absence of effective and continuous techniques of assessment
5- Weak background and knowledge of teachers about teaching profession
6- Poor school environment and teachers’ low motivation

10. Key policy messages based on Chinese experiences

- The Ethiopian teacher professional development is in a good progress but it has certain drawbacks as compared to the Chinese teacher professional development. Because Ethiopian teacher professional development, during the training session much attention is paid for academic courses than professional courses. This is not recommended; as far as teaching and learning is concerned subject matter knowledge alone is not enough at same time pedagogical courses are equally important as academic courses. So pedagogical content knowledge one of the special types of knowledge that distinguishes teachers from other experts should be given equal attention as far as teacher professional development is concerned.

- Once future teachers have completed the pre-service phase and taken full responsibility for teaching one or more classes in elementary or secondary school, they enter what is known as the inductive phase. Induction is the formal or informal process by which beginning practising teachers adapt to and learn about their roles as teachers in china. But in Ethiopian teacher professional development no formal program of induction, note that induction still occurs as an informal process of on the job learning from practice and from the cultures and norms of the school settings. Therefore, this program must be implemented in Ethiopian teacher professional development in order to enable teachers to take full responsibility in the teaching and learning process.

- Workshops and seminars are also one of the methods of teacher training in case of in-service teacher preparation as I have learnt. But in Ethiopian case workshops and seminars short and very limited, even it
not given for primary and secondary school teachers rather for university instructors at higher level. And other thing which not terrific is, the issue most of the time that discussed in this program is issues of politics rather than issues of teaching and learning process. So my suggestion goes to the ministry of education to enhance that teachers have got an opportunity to participate in workshops and seminars about issues of education, about teaching and learning process.

- Teaching research group: This is one of the best model that this paper think can have a huge impact in most parts of Africa especially in those three selected countries in Tanzania and Sudan in particular. The model itself is less expensive and it is so motivate to teachers as they work together and share their experiences and knowledge by just observing how others do things.

- Lesson study: It is like teaching research group, it is more likely to be appropriate as it incurs less costs if any. More importantly, people having different experiences and understanding can meet and work together whilst sharing their expertise on particular subject matter hence creating motivation in working areas eventually.

- Exchange programme: The method is so easy but when it happens, some universities or schools need to initiate relationship in term of sharing experiences, it becomes very effective technique. It is less expensive and is good as the school/colleges get to exchange ideas with different educational experts with diverse knowledge and profound understanding.

- University school partnerships: This is the most manageable teacher development programme in Africa. This techniques is now being embraced in some parts of Africa like Tanzania, but it is possible to be adopted even in other parts as it create an intimacy between school teachers and university staffs that are cornerstone for development mechanisms.

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