Abstract
This paper examines teacher continuous professional development in junior secondary schools in Botswana. Teachers are central to the teaching and learning process, hence, their continuous professional development should be constantly nurtured to meet their ever demanding changes in school’s physical and social environment, curriculum and educational policy. Teachers need to adapt to such changes to be effective to such a dynamic environment. The purpose of this discussion is to reflect on the importance of continuous professional development of teachers as a critical phenomenon to enable them to deal with the gaps in training due to time and changes. The paper is an extract of the main study that investigated the availability of structures or programmes that facilitate continuing professional development of teachers and factors that impede teacher development in seven (7) randomly selected Junior Secondary Schools in northern region of Botswana. The study was quantitative and qualitative in nature. Data were gathered using survey questionnaires and interviews. A computer aided statistical analysis (SPSS version 20) was used to analyse the quantitatively derived data. The analysis engaged both descriptive and inferential statistical analysis. The findings indicated lack of structures or programmes in junior secondary schools to facilitate teacher development and growth. In conclusion, it is vital for the Ministry of Education and Skills Development to continuously develop teachers professionally to cope with the changes in their teaching and learning environment.

Keywords: teacher, continuous professional development; positive school culture, curriculum, teacher quality

INTRODUCTION
Continuous professional development (CPD) is one of the major factors of elements required in the advancement of the quality and professionalism of a teacher (Lee, 2011). Teachers do not enter the classroom as finished products (Clotfelter & Ladd, 2004:2) hence, the need for their continuing professional development. In other words, pre-service training does not equip teachers with all the necessary skills and knowledge they need to be highly effective and efficient in their classrooms. It is through experience, practice, assistance and more training that novice teachers can learn and improve to become better teachers. Furthermore, there has been noteworthy investment of effort the world over in CPD to help advance teacher quality and also help them to meet the changing needs of students (Lee, 2011).

This paper explores the issues that relate to the concept of CPD of teachers in Junior Secondary Schools (JSS) Northern Botswana. The paper specifically addresses two aspects of CPD of teachers: barriers of CPD of teachers and the availability of structures that facilitate CPD of teachers in schools. A number of scholars have made attempts to define the concept of continuing professional development. Steyn & van Niekerk (2005:131) relate professional development to lifelong developmental programmes that focuses on a wide range of knowledge, skills and attitudes in order to educate students more effectively. On the other hand, Oduaran (2012) understands continuing professional development to mean all lifelong learning career development programmes designed to help different professionals acquire relevant skills and knowledge for the development of their performance. From the above definitions, one can conclude that continuing professional development is an on-going process which leads to improved work satisfaction, accomplishment of professional goals, positive development of individual knowledge and competence and keeping up to date with developments within the area.

The significance of CPD of teachers cannot be overemphasised. The teaching and learning environment in schools is fluid, hence, the need for the teachers to be continuously developing in their profession. The fluidity of the teaching and learning environment in schools could due to society’s local and as well as international educational goals such as: universal basic education by 2015, lifelong learning, life skills education, HIV/AIDS education, emotional...
intelligence, competency in the use of information communication and technology. In this regard, teachers face new responsibilities and challenges which need new skills, knowledge and new roles which can be obtained through CPD. The reason for such is that teachers join the teaching profession with different qualifications. In Botswana, teacher qualifications in schools vary. They range from Primary Teacher Certificate (PTC) to Master’s Degrees. Robinson & Latchem (2003) argue that teachers vary in number of years of education they received and levels of attained, the nature and amount of training completed, levels of motivation, and support for teachers. These diversities call for the organization of custom-built CPD courses. The diversity also demands teachers to continuously update their knowledge and skills due to the introduction of new curriculum; changes in technology; changes in learning needs of the students and/or in the light of new research on teaching and learning Kolnik (2010). In this regard, after initial training, many teachers continue to have developmental needs relating to curriculum and instruction. Professional development is needed because initial teacher education cannot contain all the knowledge that is needed in the profession (Knight 2002). Therefore, there is need for teachers to grow professionally so that they discharge their duties effectively and efficiently. Basing on the above, the continuous professional development of teachers in this paper is problematized for the following reasons: a) an informed and inspiring teacher is influential in student academic performance and achievement; b) a great teacher can act as a role model and therefore produce great students; c) paying attention to teachers’ training and support provides many opportunities for teachers to deliver their services with minimal risks and challenges; d) an ongoing and regular opportunities to learn emerging technology tools could further develop their career paths; e) investing in expanding their skills, developing new teaching strategies could deepen their understanding of their subject content. If these are lacking in the teaching profession it means, teachers will continually struggle to discharge their duties and do the bare minimum in the classrooms. They could also lack motivation to teach and this means they will produce students who lack motivation. The end result will be to produce students who are malnourished, half-baked and may not fit in the world of work or not even proceed to tertiary education.

THEORETICAL FRAMEWORK
The theory underpinning this paper is andragogy. Knowles (1968) defines andragogy as the art and science of helping adults to learn. The theory highlights that adults should be taught differently than children because the learning processes are considerably diverse (Birzer, 2004). The theory raises five critical assumptions that need to be considered in CPD of teachers. The assumptions are that, adult learners are: self-directed and autonomous; have accumulation of life experience; are goal oriented; are relevancy-oriented; and are problem centered in their learning. Although theory is old it is still applicable to today’s modern practices of teaching and learning.

Firstly, adults commit to learning when the goals are realistic and important to them Lalitha (2005). In other words, adult learners want to see the connection between what they are learning and what they accomplish in their day to day activities. Teachers being adults will commit to CPD programmes that touch base with what they do in the classroom, and also if what they learn have prospects for immediate application in the classroom. There are challenges which teachers encounter in school. These include: students indiscipline, lack of resources, overcrowded classrooms, and high teaching load. Therefore, CPD programmes which do not seem to help teachers to address these problems attract teachers’ minimum interest. This critical assumption challenges education managers to come up with teacher development programmes which are realistic, that is programmes which offer solutions to practical challenges teachers encounter in classrooms.

Secondly, adults have a deep need to be self-directing or self-concept. Pohland and Bova (2000) are of the view that adult learners dislike circumstances in which they feel that other people are imposing their will on them. Adults want to take more responsibility of their own learning and the direction it takes. This assumption of the adult learning theory challenges education managers to desist from imposing programmes which they think will aid teachers to grow professional without their input. The self-directing assumption clearly signals to education managers that teachers are adults they are in the know of what CPD programmes will best enhance their professional development. The role of education managers is to facilitate the process of CPD activities.

Thirdly, adult learners have an accumulation of life experience which is a resource for learning. When teachers are teaching, they accumulate knowledge through experience. The knowledge which they gather through experience provides a base which can be used in CPD programmes. Teachers want this knowledge utilized. Therefore, those charged with responsibility of facilitating CPD programmes should recognize teacher’s experiential knowledge. Education managers
should avail opportunities for teachers to share their experiences such as challenges they face and success when teaching their lessons.

Another critical assumption of andragogy theory is that adult learners are problem – centred in their orientation to the learning process, not subject – centred. Adult learners are more interested in knowing how what they are learning will impact or apply in their life. Similarly, teachers as adults want to know the applicability of the CPD activity in their classrooms. Adults learn in order to be able to better perform a task, solve a problem, or live in a more satisfying way (Harrison, 2011). The assumptions challenges educational authorities to provide programmes intended for professional growth of teachers that are realistic to enhance their knowledge and skills. In essence, CPD programmes demand teachers to be effective and efficient in their delivery of service and therefore, it is important to design CPD programmes that can help them achieve the ever demanding school environments.

LITERATURE REVIEW
Continuing professional development of teachers has been observed to be a key aspect of all the components that are required to advance the quality of teachers (Clarke, and Robson, 2005; Clotfelter and Ladd, 2004; Lewis, et al. 1999). Teachers do not enter the classroom as a finished product (Clotfelter and Ladd, 2004:2) but they need to attain new concepts, ideas and knowledge to improve their professional skills and proficiency which in turn advances general quality of educational service delivery. It is through continuing professional development that teachers can acquire knowledge and skills necessary in their classrooms. The following factors influence CPD of teachers. These factors are: teacher commitment; school leadership; collaboration; schools culture; time and financial resources.

Time has been found to be a critical factor in CPD. Time should be availed for teachers to participate in teacher development programmes. Bush (1999) argues that teachers need time for make continuing professional development an ongoing part of their work on daily basis. The implications of availing more time for teacher continuing professional growth is, that teachers become more effective and as a result, the more students learn (Darling-Hammond, 1999). Therefore, time is a significant factor in professional growth of teachers.

Another significant factor of CPD of teachers is funding of the professional development programmes. These professional development activities come in different forms. It could take the form of upgrading teachers from lower to high qualification; running workshops and seminars for teachers. These activities have to be financed for them to happen. This calls for school to have a budget which caters for CPD of teachers.

School leadership is another important factor in CPD of teachers. Quality leadership presents an orderly and nurturing environment that supports teachers and stimulates their efforts (Bernuer, 2002) and should be committed to design and develop CPD for teachers (Rowland & Adams, 1999). Therefore school managers should be capacitated to support and promote CPD of teachers at school level. A positive school culture is another ingredient for successful CPD of teachers. The school should be humane and professionally supportive by providing teachers with resources when in need and support opportunities to work together and learn from each other. A school management with a motivating culture encourages teachers to engage in professional development programmes at school or elsewhere. A motivated teacher learns from others and is more likely to attend various professional development activities (Komba & Nkumbi, 2008:72). Collaborating teachers utilize their strengths and complement each other’s knowledge and skills.

The necessity of continuing professional development of teachers is widely accepted the world over. Botswana’s Revised National Policy of Education (RNPE) of 1994 recognizes the importance of CPD of teachers. The policy advocates for: strengthening of probation systems in schools; school heads as instructional leaders to take responsibility for in-service training of teachers; in-service education officers to visit schools to supplement school based in-service training and accessibility of in-service training to all teachers at various levels to ensure continuing professional and academic development.

Education systems have adopted different approaches to continuing professional development of teachers. However, there are challenges with regard to implementation of CPD programmes in schools. Studies conducted by Boaduo (2010) and Kolnik (2010) on CPD of teachers established the following as barriers to teacher professional development: insufficient funding, time constraints, lack of support by school leadership, lack of trained personnel to oversee CPD of teachers, lack of ownership by teachers, lack of structures that support CPD initiatives. Bulawa (2003) in his study on School-Based Staff Development in Botswana established that: lack of funding; tight schedule; individualism; lack of support from school management; lack of reward for participation and infrequent staff development activities hinder CPD of
teachers in schools. These could be some of the factors that impede CPD.

In brief, what emerged from the literature review is that teachers need continuous upgrading and development since they do not enter the classrooms as finished products. Reviewed literature also revealed that they are factors which are significant in implementation of CPD programmes in school. Amongst all these factors, school leadership is very pivotal when it comes to issues of CPD of teachers in school. For example if the school leadership has very little regard for CPD of teachers then CPD activities will be allocated small percentage of the school budget. Quality leadership creates school environment that supports, motivates and encourages teachers to have a meaningful contribution to quality teaching and learning in school. Teacher participation in CPD activities is one of the contributors to quality teaching and learning in the classroom. Therefore, it is the responsibility of the school leadership to make sure their staff members are able to meet the demands of the policies and curricula as necessary through providing quality leadership.

RESEARCH METHODOLOGY
In this study the researcher engaged a mixed methodology of quantitative and qualitative approaches in the data collection and analysis processes. The mixed approaches were chosen because it allowed the researcher to gather different but harmonizing data to best understand the situation regarding factors that impede CPD in Junior Secondary Schools (JSS) and structures in schools that support professional growth of teachers. The mixed methods led to greater validity and reliability of data, getting answers from different perspectives and also ensuring that there are no gaps to the information collected.

The study was conducted in seven selected JSS in Northern Botswana out of thirty three in the North Region only. There are about two hundred (200) JSS in the whole country. The study was delimited to this area because of the vastness of the country which could have been a challenge for the researcher to access research participants. For the qualitative study, these selected seven junior secondary schools are located in the Francistown city. The main reason to limit the schools was to complete the study on the time allocated for data collection.

The use different sources data collection used such as a survey, questionnaire and interview were meant to strengthen the validity of the results. An initial survey questionnaire was used for the collection of quantitative data for teachers. The design of the questionnaire consisted of two sections: Section A gathered biographical data, such as, gender, professional qualification, teaching post and teaching experience. Section B comprised thirty (30) closed – ended questions structured according to the Likert-scale on a five grid system aimed at gathering barriers of CPD of teachers and availability of resources that facilitate CPD of teachers in schools. Interviews were used for collection of qualitative data from teachers, school heads, senior teacher staff development and in-service education officers. The use of interviews was to get the respondents to reveal their experiences and opinions regarding issues pertaining to CPD of teachers. Four semi-structured individual interviews were conducted to explore the views of teachers, school heads, in-service education officers and staff development teachers about barriers of CPD of teachers and availability of resources that facilitate CPD of teachers.

The population of the study was mainly teachers, school heads, and senior teachers as well as in-service education officers in the northern Botswana. The choice for these research participants is based on the fact that they are competent on issues of CPD of teachers. Again they play different roles in the development if a teacher in junior secondary schools; hence their responses offered diverse views on the problem under study. In the quantitative phase, two hundred and forty (240) copies of survey questionnaires were hand delivered to all teachers in the seven (7) JSS in Francistown. Of the 240 teachers, 126 returned their completed questionnaires. A contact person was established in the schools to assist in the collection of completed questionnaires. An array of strategies were engaged to realize as high response rate as possible.

As for the qualitative phase, a sample comprising teachers, school heads, senior teacher staff development, and in-service education officers were randomly selected and interviewed. Four (4) JSS were randomly selected from seven (7) JSS in Francistown by the “blind draw” or with the “closed eye” method. The four (4) school heads, four (4) senior teacher staff development and four (4) teachers of the randomly selected schools comprised the sample for the interview. In addition to that two (2) in-service education officers were randomly selected from a total of ten (10) education officers in northern Botswana. In total fourteen (14) participants were selected for interviews. Prior appoints with the interviewees were made and they were all interviewed. All interviews took place in schools except for in-service officers which was conducted in their offices. A voice recorder was used during the interview and was conducted in English.
Quantitative data were analyzed using Statistical Package for Social Sciences (SPSS version 20). The data was coded and captured into a spread sheet. The analysis engaged the descriptive statistics because it helped to show data in meaningful ways such that it can be easily interpreted. As for the qualitative data, audiotapes were repeatedly listened too and transcribed and categories were worked out which were then coded according to the key research questions. The researcher used the themes already identified in the quantitative data analysis. It is from the analysis of the data that the theme continual professional development of teachers discussed in this paper emerged as an important issue to address.

In conclusion, the researcher employed the mixed methodology of quantitative and qualitative approaches because it allows the researcher to gather different but harmonizing data to best understand the problem under study with regard to programmes in schools that support CPD of teachers and barriers of CPD of teachers in JSS in northern Botswana.

This study was limited to the Northern region of Botswana and thirty three junior secondary schools only and the results may be different in other regions. The voices, opinions and experiences of other teachers in the other regions are not represented in this study. Therefore, the findings may not be generalized to other regions not studied. The idea was not necessarily to generalize but to share ideas with scholars in the field of education and to contribute to the field of knowledge in education.

RESULTS OF THE STUDY
The results of the study were analyzed according to the mixed methods followed for data collection and they are presented according to each method.

Quantitative Analysis
Seventeen questionnaire items were developed to address the research question 1 “What factors impede CPD of teachers in JSS in northern Botswana?” These items were captured in a five point Likert scale ranging for Strongly Disagree (1) to Strongly Agree (5). The data were analyzed using Pearson’s chi-squared test ($\chi^2$ - test) of goodness of fit, to establish if the observed responses were as anticipated, and to check if the observed frequencies were uniformly distributed across categories of responses. All were significant. Items that were listed in the questionnaire as a measure for research question 1 were identified as barriers to CPD of teachers:

- Tight school schedule;
- Insufficient funding;
- Lack of ownership by teachers;
- Lack of support by school leadership;
- Lack of appropriate reward for professional growth and
- Lack of input by teachers in CPD initiatives.

The outcomes of the analysis of quantitative data established the following as barriers to CPD of teachers:

Overall, the analysis of quantitative data in relation to second research question revealed that there are no structures or programmes in JSS which facilitate continuing professional development of teachers.

Qualitative Analysis
Analysis of interview data in relation to research question 1 “What factors impede CPD of teachers in JSS in northern Botswana?” established two barriers which were also identified by questionnaire data. The barriers are: “tight school schedule” and “insufficient funding”.

One teacher interviewed had this say concerning the barriers:
In above excerpt besides indicating tightness of teachers schedule it also reveals how teachers are overwhelmed with work. So it is the work load which leads to tight schedule for teachers hence a barrier to professional growth.

In addition to the aforementioned barriers, the qualitative findings also revealed the following as barriers to CPD of teachers; inadequate skilled personal; unstructured in-service education; insufficient manpower. One education officer interviewed had this to say concerning barriers of CPD:

_The above quotation also reveals that there are limited structures or programmes that facilitate CPD of teachers as well as factors that impede CPD of teachers in selected JSS in northern Botswana._

The outcomes of the analysis of qualitative data in relation to research question 2: “Are there any structures that facilitate CPD of teachers in JSS in northern Botswana?” revealed that the only available structures in schools which facilitate CPD is staff development committee. Below are some excerpts of responses of the research participants:

_The above quotations from teachers indicate that there are limited resources and staff development procedures in schools. Teachers are faced with many challenges in their classrooms, therefore limited CPD resources and procedures compound their challenges._

The results from the mixed methods have revealed that indeed there are problems in JSS as regards the CPD. The barriers of CPD of teachers are not confined to school environment but they extend to education managers (education officers). Education officer play a significant role in professional growth of teachers. Quality leadership in school is very essential with regard to CPD of teachers. Amongst all the barriers of CPD, lack of support by school leadership wears heavily on CPD of teacher because it can be source of other barriers. School leadership comes up with school budget and they can decide to fund CPD activities inadequately. Under staffing which leads to tight schedule could be due unwillingness of school leadership to employ more personnel because of other interests. This challenges education authorities to ensure that schools are lead by men and women of substance otherwise quality teaching and learning will be challenge in schools.

**DISCUSSION OF FINDINGS**

The outcomes of the study revealed that there are limited structures to facilitate teacher development in JSS in northern Botswana. The findings concur with Bulawa (2003) and Bredeson (2003) who also established insufficient or lack of structures in schools which support professional development of teachers. The basis of teacher quality is the provision of adequate opportunities for personal and professional growth of teachers. Feinman-Nemser (2001:1014) argued that teachers require access to serious and sustained learning opportunities at every stage in their career if they are to be able to teach in ways that meet demanding new standards for student learning or to participate in the solution of educational problems. These prospects include amongst others structures or programmes in
Programmes such as coaching, mentoring, peer observation and lesson study should be established in schools to facilitate teacher development. A programme like peer observation provides a supportive, blame-free environment that encourages and facilitates professional growth of teachers. Armour & Yelling (2004:209) argue that the process of observation and feedback facilitates discussion and exchange of practical and relevant ideas, which many teachers report as being crucial to the fruitfulness of the CPD experience. The results of a study on lesson study model in United States of America showed that teachers exhibited increased subject matter knowledge, increased knowledge of instruction and increased capacity to observe students (Perry et al., 2002). These professional development programmes discussed above requires teachers to collaborate their departments to enhance professional growth of each other. Furthermore, these programmes require minimum or no funding at all, therefore there is no reason why schools should not have such programmes to promote CPD of teachers.

It emerged that time is a constraint with regard to CPD of teachers in junior schools in northern Botswana. Time should be availed for teachers to engage in professional development programmes so that they improve the quality of teaching in their classrooms. Teachers need time to make CPD an on-going part of their work on a daily basis (Bush, 1999) and their participation in professional development activities, make them teach more effectively, as a result students learn more (Darling-Hammond, 1999). Nevertheless, teachers in countries such as Germany, Japan and China do have significant amount of time to engage in CPD activities. In these countries teachers teach fewer classes, consequently spend part of the day conferring with students and colleagues on other professional development activities (Darling-Hammond, 1996). Botswana’s education system should emulate approaches adopted by these countries by reducing the workload of teachers to create time for teacher development activities in schools.

Inadequate funding of teacher development activities was identified by the study as one of the barriers to CPD of teachers in schools. Insufficient funding is a major challenge faced by teachers and educators worldwide (Applewhite, 1999). However, in some parts of the world, schools came up with initiatives to address this challenge. A high school in Colorado created a Professional Development fund through the initiative of a group of teachers (Geiger 1996). In the context of Botswana’s education, Ministry of Education & Skills Development is the sole funder of CPD programmes of teachers but government is challenged financial as the outcomes of the study points out. Therefore other stakeholders such as private sector should be encouraged to fund CPD activities for teachers.

Unsupportive school leadership emerged as one of the barriers of CPD of teachers in Junior Secondary Schools. One of the key roles of instructional leaders is to avail opportunities for teachers to grow professional Haycook (1999). Support by school management is very important for promoting teacher development and high quality education. In the context of education system of Botswana, the RNPE of 1994 recognizes the significance of the instructional leaders with regard to CPD of teachers. The policy states that School heads as instructional leaders are responsible for in-service training of teachers. However, outcomes of the study revealed lack of support by school leadership. School leadership need to be capacitated for them to able to play their social and technical roles more effectively (Mosha, 2006). Therefore, lack of support to CPD activities could be attributed to incapacitation. The capacity of school management is the ability of the leadership to carry out its duties including supporting CPD of teachers at school level.

Another barrier to CPD of teachers established by the study is lack of teacher ownership of professional development initiatives. Teachers are of the view that they have minimal or no input in the decisions about the ‘what’ and ‘how’ of the professional development activities they are to participate in. CPD is a learning process. One of critical assumption of adults learning theory is that adults have a deep need to be self-directing or self-concept. Pohland and Bova (2000) argue that adult learners dislike circumstances in which they feel that other people are imposing their will on them. Teachers want to have an input on the decision of ‘what’ and ‘how’ of CPD activities. Therefore, CPD programmes which relegate teachers to be passive recipients of knowledge are an impediment in their professional growth.

Lack of trained personnel to manage CPD programmes is another issue of concern. Education managers are essential in capacitating school management. Their responsibility is to interpret and supervise the implementation of education policy at their level of administration (URT 1995). Education managers guide, direct and advise school management on teacher professional development. In the context of Botswana’s education system, there are two officers managing CPD
of teachers. These two officers are: Senior Teacher Staff Development who is based in school and In-service Education officer who is at Regional Office. The In-service education officer link up with school management team and staff development teacher to identify the training needs of the schools or individuals. Senior teacher staff development’s responsibility is to facilitate CPD of teachers in schools. For these officers to effectively and efficiently deliver on their mandate, they should be knowledgeable and skilled for the job.

Unstructured in-service programmes also surfaced as barrier of CPD of teachers. Currently there is no policy framework at national level in Botswana which directs CPD of teachers. Countries like Ethiopia and South Africa have such policy frameworks; Ethiopian Education and Training Policy of 1994 and South African National Policy Framework for Teacher Education and Development of 2006. The policy framework highlights all aspects that relate to CPD of teachers such as: objectives of CPD; types of CPD; time for CPD; responsibilities of CPD stakeholders; and resources and materials to support CPD. Botswana’s education system need such a policy because it will help to address some of the barriers to CPD of teachers in schools. Issues like; who and how will CPD programmes be funded; types of CPD programmes; when do teachers engage in CPD programmes will be spelled out in the policy framework.

CONCLUSION
It emerged from the outcomes of the study that there are barriers to continual professional development of teachers in Junior Secondary Schools in northern Botswana. These barriers include amongst others: time constraints; insufficient funding; untrained personnel to facilitate CPD of teachers. Therefore the Ministry of Education and Skills Development should make all necessary attempts to overcome these barriers of CPD of teachers in JSS. Arguably, the basis for teacher quality is the provision of adequate opportunities for personal and professional growth of teachers. These prospects include amongst others structures or programmes in schools which facilitate professional growth of teachers. Importantly, teachers require access to serious and sustained learning opportunities at every stage in their career for them to be able to teach in ways that meet new standards for learning. Programmes such as coaching, mentoring, peer observation and lesson study should be established in schools to facilitate teacher development.

REFERENCES


