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THE UNIVERSITY OF YAOUNDE I

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HUMAN,SOCIAL AND EDUCATIONAL
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EVALUATION



**THE IMPACT OF CURRICULUM INNOVATION ON
TEACHERS' EFFECTIVENESS IN SELECTED PRIMARY
SCHOOLS IN YAOUNDE MUNICIPALITY**

Dissertation submitted and presented on the 7th January 2023 in partial
fulfilment of the requirement for the award of a Masters Degree in Education

Specialization: Curriculum Development and Evaluation

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DECLARATION

I, **Comfort Agborneke**, do hereby declare that this dissertation is my original work and it has not been submitted and will not be submitted for any academic award in any other University for a similar or any other degree award.

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CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance by the University of Yaoundé I, a dissertation entitled: **“The impact of curriculum innovation on teachers’ effectiveness in selected primary schools in Yaounde Municipality”**, in partial fulfilment of the requirements for the award of a Masters Degree in Education from the University of Yaoundé I

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DEDICATION

I dedicate this work to my darling husband Mr Ayuk-Eyong Manfred Bakia

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This work could not have been realized without the contribution of a host of individuals. I wish to extend my sincere gratitude to Dr. Mbeh Adolf Tanyi who is the supervisor of this project.

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LIST OF ABRIVATIONS

N.P.A :	New Pedagogic Approach
CAPIEMP;	Certificat des Instituteurs de l'Enseignement Maternel et Primaire
C.B.A.	Competency Based Approach
I.C.T:	Information Communication Technology
P.B.L:	Project Based Learning
I.T.L :	Integrated Theme Learning
C.L :	Cooperative Learning
U.N.E.S.C.O :	United Nations Educational Scientific and Cultural Organization
MINESEC :	Ministry of Secondary Education
O.I.F :	Organization International de la Francophonie
A.F.D :	French Development Agency
S.D.G :	Sustainable Development Goal
E.S.S:	Education Sector Strategy
G.E.S.P:	Growth and Employment Strategy Paper
O.E.C.D:	Organization for Economic Cooperation and Development
O.B.A :	Objective Based Approach
S.R :	Stimulus Response
P.D :	Professional Development
L.E:	Learning Envoronment
A.R :	Augmented Reality
V.R :	Vitual Reality
S.G.P :	Student Growth Percentile
V.A.M :	Value- Added Measures
N.C.L.B :	No Child Left Behind
F.F.T :	Frame Work for Teaching
T.Q.M :	Total Quality Management
M.K.O :	More Knowledgeable Other
S.I :	Social Interaction
P.S :	Problem Solving

R D&D : Research Development and Diffussion

HND: Higher National Diplomat

ABSTRACT

The study sought the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde Municipality. This study was guided by four research objectives and four hypotheses. In line with the following objectives (i) To examine the contribution of instructional materials on primary school teachers' effectiveness. (ii) To examine the impact of professional development on primary school teachers' effectiveness. (iii) To examine the impact of the learning environment on primary school teachers' effectiveness (iv) To evaluate the influence of workload on primary school teachers' effectiveness. The researcher employed the use of the descriptive survey research design. A sample size of 203 respondents were chosen from twenty-two (22) primary schools in Yaounde Municipality. A likert scale self-administered questionnaire was used to collect information from the respondents. The collected data was analysed by Statistical Product Service Solution (SPSS) using the simple linear regression to assess the impact of curriculum innovation on teachers' effectiveness. Ha1: The regression results showed a significant relationship between instructional materials on teacher effectiveness scores ($t = 35.034$, $p = 0.000$). Ha2: The regression results showed a significant relationship between professional development on teacher effectiveness scores ($t = 41.226$, $p = 0.000$). Ha3: The regression results showed a significant relationship between learning environment on teacher effectiveness scores ($t = 34.161$, $p = 0.000$). Ha4: The regression results showed a significant relationship between workload on teacher effectiveness scores ($t = 33.848$, $p = 0.000$). Based on the findings of the study, it is recommended that, for the teachers to be effective attention should be given to instructional materials, professional development, learning environment and work load because they are good predictors to teachers' effectiveness. Therefore, the study concluded that, there is a significant correlation on the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde Municipality.

Keywords: Curriculum innovation and teachers' effectiveness

RESUME

L'étude a recherché l'impact de l'innovation des programmes sur l'efficacité des enseignants dans certaines écoles primaires de la municipalité de Yaoundé. Cette étude était guidée par quatre objectifs de recherche et quatre hypothèses. Conformément aux objectifs suivants (i) Examiner la contribution du matériel didactique sur l'efficacité des enseignants du primaire. (ii) Examiner l'impact du développement professionnel sur les enseignants du primaire. (iii) Examiner l'impact de l'environnement d'apprentissage sur l'efficacité des enseignants du primaire (iv) Évaluer l'influence de la charge de travail sur l'efficacité des enseignants du primaire. Le chercheur a utilisé le modèle de recherche par sondage descriptif. Un échantillon de 203 répondants a été choisi dans vingt-deux (22) écoles primaires de la commune de Yaoundé. Un questionnaire auto-administré à l'échelle de Likert a été utilisé pour recueillir des informations auprès des répondants. Les données collectées ont été analysées par la solution de service de produit statistique (SPSS) en utilisant la régression linéaire simple pour évaluer l'impact de l'innovation curriculaire sur l'efficacité des enseignants. , $p = 0,000$). Ha2 : Les résultats de la régression ont montré une relation significative entre le développement professionnel et les scores d'efficacité des enseignants ($t = 41,226$, $p = 0,000$). Ha3 : Les résultats de la régression ont montré une relation significative entre l'environnement d'apprentissage et les scores d'efficacité des enseignants ($t = 34,161$, $p = 0,000$). Ha4 : Les résultats de la régression ont montré une relation significative entre la charge de travail et les scores d'efficacité des enseignants ($t = 33,848$, $p = 0,000$). Sur la base des résultats de l'étude, il est recommandé que, pour que les enseignants soient efficaces, une attention particulière soit accordée au matériel pédagogique, au développement professionnel, à l'environnement d'apprentissage et à la charge de travail, car ils sont de bons prédictors de l'efficacité des enseignants. Par conséquent, l'étude a conclu qu'il existe une corrélation significative entre l'impact de l'innovation des programmes d'études sur l'efficacité des enseignants dans certaines écoles primaires de la municipalité de Yaoundé.

Mots-clés : innovation curriculaire et efficacité des enseignants

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CHAPTER ONE

INTRODUCTION

This chapter consisted of a summary of the concepts under study thus; the background (historical, contextual, conceptual, theoretical background), statement of the problem, research question, objectives, hypothesis, delimitation, and definition of key concepts which made up this write up. There is no stagnant educational system. For the education system to successfully succeed in its goals and objectives, it must meet up with the challenges of the time. To meet up these challenges innovations must be a part and parcel of the education system. Today's education systems are required to be both effective and efficient, or in other words, to reach the goals set for them while making the best use of available resources (Cornali,2012).

The concept of innovation has been defined differently by authors. Hassenforder (1974) defined the innovation of education as an attempt of any kind to consciously and deliberately aim to introduce a change in the education system to improve it. Leithwood (1981) introduced the term curriculum innovation as the teachers' ability to use a new program, according to the changes required at different stages of development. Although innovations are meant to improve education, it does not go without some challenges thereby affecting the education system negatively. Whenever innovations take place, all eyes are focused on the teacher who is the key actor in curriculum innovation. Teachers are central to whether a curriculum is delivered consistently, effectively, efficacy to enable the support of students' progress and growth Lochner et al (2015). It has been observed that, despite the innovations carried out in the primary school curriculum in Cameroon, the teachers find it difficult to implement the innovations thereby affecting the learning outcome of their learners. It was for this reason that, the researcher sought to carry out a study to seek a solution that will help to improve both the teachers' and learners' output.

In later years, the entire world has been experiencing educational changes and innovations as a result of new concepts of knowledge, discoveries, national reconstruction, and economic growth. So many countries started carrying out education reforms to meet up with the changing world. The government of Cameroon was not left out of this race to meet up with the changing world and concepts. Despite the good intentions of innovation, some lapses accompanied innovations giving grounds for the researcher to undertake a study on curriculum innovation.

The education system of Cameroon has been experiencing innovation in the last decade Cameroon Primary School Curriculum(2018).To improve the quality of the teaching and learning process in primary school, there was the introduction of pedagogy by objective in 1990. However, the weaknesses of this approach led to another pedagogic innovation known as the “New Pedagogic Approach “ (N.P.A) in 1995. The situation of outdated and ill-adapted school syllabus worsened which led to a national outcry for the reform of the national school system (MINEDUB Inspectorate General of Education 2016,p. 9) cited in Alemnge (2019). The reform brought the introduction of the Competency-Based Approach (CBA) which is currently used in schools today in Cameroon. In this approach, the curriculum is not organized around objectives, learning experiences, organization of learning experiences, and evaluation but is rather organized around seven national core skills and four broad-based competences. The curriculum is designed to be implemented through pathway subjects and eight integrated learning themes cited in Alemnge, (2019).

In 2001, there was the official introduction of Information Communication Technology in both private and public schools cited in Ngajie& Ngo Mback(2016). This was to integrate ICT into the teaching-learning process and improving on the quality of education. The harmonization of the primary school curriculum for both sub-systems of education which went operational in 2018 is another innovation Cameroon Primary School Curriculum (2018). For the first time, the same aspects are taught in schools in the English and French sub-systems. There was also the introduction of some core subjects like vocational training, technology, an engineering. Other subjects were grouped into different domains and weighted according to their order of importance, modification of the periods in the timetable, and also the learning and teaching approaches are now geared towards Project Based Learning(PBL), Integrated Theme Learning (ITL), and Cooperative Learning (CL). All these innovations have gone a long way to impact the teachers who are the key players in the implementation process of the curriculum.

A solid foundation of education will depend on its teachers O.E.C.D (2018). Teachers as drivers of curriculum innovation and change deserve respect and careful consideration as curriculum innovation is often accompanied by unrealistic demands like; lack of resources to understand the content of what is required, Lack of professional development, increase workload, and inadequate learning environment. Although curriculum innovation is carried out to improve the effectiveness of teachers it turns out to have a converse effect when teachers try to escape the challenges of innovations Steiner(2017). In recent years, the

effects of curriculum innovation have been a force behind the changes that occur in the teaching and learning process. The teacher is supposed to be current on concepts of education. This will help them support life-long learning as educators, professionals, and individuals responsible for the education of the next generation Cameroon Primary School Curriculum(2018). It is for this reason that, this study sought to find out the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaoundé Municipality. To achieve this, we used the stimulus-response theory of Thorndike, the social learning theory of Albert Bandura, Lev Vygotsky's socio-cultural theory of cognitive development, and Malcolm Knowles's adult learning theory. We generated the main research hypothesis and four secondary hypotheses. The main hypothesis was formulated thus: There is no significant impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaoundé Municipality. In education, we can estimate the effects of innovation through learning outcomes or exam results. This can be done through teachers' formative, summative, formal, and informal assessments and students self-assessment. To answer the question of the researcher, data was collected from previous results and analyzed statistically and in the end, conclusion was drawn.

Background of the study

In Cameroon, formal education was introduced by the colonial masters; Britain and France Ashu (2020). This made Cameroon to have a bi-cultural heritage and a diverse system of education. In addition to dual language and corresponding teaching methods, there was a diversity of order of teaching. As a result of this diversity, the United Nations under its agency in 1963: United Nations Educational Scientific and Cultural Organization (UNESCO) came up with proposals to harmonise the structure of the curricula Alemnge(2019). This gave birth to a national curriculum for both Basic and Secondary Education in Cameroon. The idea to harmonize the curriculum was backed by the law of orientation to lay down guidelines on education articles four (4) and five (5) which deals on the general and specific objectives of education in Cameroon.

Historical

Primary education is considered the foundation of education in Cameroon. This means that, if the foundation is weak, it will not be able to support the load it is meant to carry. Any education system that cares about performance and efficiency, should be built on administration and pedagogy MINESEC, 2009 cited in Agbor, (2020). The Ministry of Basic Education in a bid to improve the quality of teaching and learning in primary schools

decided to carry out some innovations in the curriculum. With changing concepts and technological development around the world, many countries began carrying out curricular reforms with Cameroon inclusive.

In 1995, the government of Cameroon convened a national forum on education to propose a new orientation to national education in Cameroon. The forum was attended by all education stakeholders: parents, teachers, politicians, government officials, businessmen, and women. The proposals of this forum gave birth to law 98/004 of 14th April, 1998. The law was then used to prepare a national education policy for Cameroon primary and secondary schools Tambo, 2003 cited in Alemnge, (2019). The 1995 forum brought the birth of a new school curriculum for the English sub-system. This curriculum brought the duration of studies to six years in harmony with that of the French subsystem.

Still in 1995, officials of MINEDUB participated in a regional seminar in Yaoundé organised by Organization Internationale de la Francophonie (OIF). The result of this seminar was the introduction of a new pedagogic approach: The Competency-Based Approach in all primary schools nationwide (cited in Alemnge.2019). This led to the development of a new national curriculum based on the general and specific objectives of education in section four (4) and five (5) which stipulates thus:

- The general purpose of education is to train children for their intellectual, physical, civic, and moral development and their smooth integration into society bearing in mind prevailing economic, socio-cultural, political, and moral factors and the specific objectives of education shall be to :
- Train citizens who are firmly rooted in their culture, but open to the world and respectful of the general interest and common weal;
- Inculcate the major universal ethical values which are dignity and honor, honesty and integrity as well as a sense of discipline in pupils and students.
- To promote family life.
- Promote national languages;
- Provide an introduction to the democratic culture and practices, respect for human rights and freedoms, justice and tolerance, the fight against all types of discrimination, the love of peace and dialogue, civic responsibility, and the promotion of regional and sub-regional integration.

- Cultivate the love of effort and work well done, the quest for excellence, and team spirit.
- Develop creativity, a sense of initiative, and a spirit of enterprise;
- Provide physical, sport, artistic and cultural training for the child;
- Promote hygiene and health education (Law 98/004 Of 14th of April, 1998 pp.21-22).

In 2009, the government of Cameroon participated in a comparative study to lay down modalities for implementing curricular reforms alongside other African countries; Gabon, Tunisia, Mali, and Senegal Alemnge(2019). This led to a study of the reform of the Cameroon primary school curriculum with the support of the French Development Agency(AFD) through the C2D-E program Ministry of Basic Education 2016, cited in Alemnge,(2019).

Contextual

Nursery and primary education are the foundation of sustainable learning. It is on this basis that Cameroon has ratified several conventions related to compulsory education. These conventions range from the Jomtien Education Framework of 1990, the Salamanca statement of 1994, the Dakar framework of 2000 to ensure that the goals and objectives of education are attained, to the Incheon Declaration of 2015; to set the bases of commitment of what has to be the education the next fifteen years, precisely the fourth sustainable development goal (SDG4) Cameroon Nursery School Curriculum English Subsystem (2018).

In the Cameroon context, the constitution guarantees the right of the child to education highlighted in law number 98/004 of the 14th April 1998. The education for all conference organized by UNESCO in 1990 in Jomtien Thailand saw many countries embark on educational reforms in their systems of education. As a result of this, the government of Cameroon engaged in the elaboration of an education sector strategy (E.S.S) between 2006 and 2011 based on poverty reduction papers. The government took the option to promote growth as a source of wealth and employment. It is within this framework that vision 2035 (to make Cameroon an emerging country in diversity) is based. The educational sector consists on one hand to provide the youth with quality education requisite competences and professional attitudes and on the other hand facilitating their accession into the professional world. To achieve the dream of Cameroon becoming emergent in 2035, the government developed the Growth and Employment Strategy Paper(G.E.S.P) in 2009 to provide major

orientations to all sectors of the society. Cameroon Nursery School Curriculum English Sub-system,(2018). It was on this basis that the Prime Minister of Cameroon appointed a committee from the Ministries in charge of Education to develop core competences that suit the curriculum and meet the needs of the labor market (Alemnge, 2019).

Conceptual

Basic education molds learners and encourages them to be dynamic and creative. The 1996 constitution of the Republic of Cameroon spells out the state's engagement in guaranteeing the child's right to education. Cameroon also adheres to the Human Rights Declaration and related legal instruments. Every child is endowed with learning potential which needs to be awakened and guided by appropriate instruction and instructional materials. The Ministry of Basic Education (MINEDUB) has undertaken a massive reform of the Nursery and primary school curricula an activity aimed at ensuring quality basic education for all Cameroonian children Cameroon Nursery School Curriculum English Sub-System,(2018). Curriculum innovations are usually carried out to improve the quality of teaching based on the education policy of the country where the innovations are carried out. The quality of an education system depends on the quality of its teachers; but the quality of teachers cannot exceed the quality of policies that shape their work environment in school and that guide selection, recruitment, and development O.E.C, D,(2018). Teaching methods are special procedures through which educational goals are attained. The Cameroon education system has experienced an evolution from the Objective Based Approach (O.B.A) through the influential thinking approach that was referred to as the New Pedagogic Approach (NPA) to the Competency-Based Approach (C.B.A) which is used today (Cameroon Primary School Curriculum English sub-system level 2).The government also depend on SND 30; in which the government rely on four main pillars to achieve its objectives thus; the structural transformation of the national economy,the development of human capital and wellbeing,the promotion of employment and economic integration,governance, decentralisation and strategic management of the state(SND 2020-2030).

The present innovative curriculum is based on the vision of the curriculum for the country, teachers, pupils, and the community. The vision for the country is to empower pupils with the requisite competences to effectively contribute to propelling Cameroon to emerging country status by 2035. To provide the teachers with pedagogic opportunities that are more flexible as well as the possibility to adapt the teaching and learning to their specific context. The pupils will be engaged in more active, cooperative, and creative learning and teaching processes

with opportunities to develop their real potential and to provide the required support to enhance the learning and teaching process Teachers Hand Book For The Nursery and Primary School Curricular(2018).

Some of the innovations in the present primary school curriculum are thus; the grouping of the subject under different domains with weighting according to strengths, the adjustment in the timetable: increasing the duration of periods, and learning and teaching approaches based on Project Based Learning(PBL), Integrated Theme Learning (ITL), Cooperative Learning (CL).The vision of the new curriculum falls in line with the SDG4; which seeks to ensure inclusive and equitable quality education and promote life long learning for all;with focus on access,equity and inclusion quality and learning outcomes within a life long learning approach.

The implementation of the innovation in the primary school curriculum met with some challenges affecting the effectiveness of teachersAlemnge(2019). To develop competent lifelong learners, the base from which they come is important. It is important to recognize those who lay the foundation, what type of foundation is laid, and how the foundation is laid. Primary school teachers have the responsibility of laying the right foundation for the learners for the better. The teachers' attitude towards curriculum innovation will determine how they will facilitate the process of innovation. Some of the challenges met in the implementation process of innovation are the lack of instructional materials to teach especially some of the new subjects introduced in the curriculumAbou&Kushkiev(2017). This makes the lesson preparation difficult affecting the teachers' output in the discharge of their duty. Another challenge faced by the teacher is the lack of professional development. The methods used in teaching today are different from what teachers acquired in the training schools. This aspect affects them as some teachers turn to neglect some of these innovations affecting their effectiveness. The introduction of innovation has also increased the workload for the teachers. This affects the teachers as they find it difficult to cover the material assigned to them. The learning environment is another challenge for the teacher. The learning environment is supposed to be re-arranged to suit the innovations but they remain the same with no changes making it difficult for the teachers to implement the innovations.

Theoretical

According to Lawrence Neumann, (2014), A scientific theory is a coherent system of logical consistency, and inter-connected ideas used to condense an organized knowledge cited in

Enow, (2020). For the researchers to bring out the causal relationships that exist between the concepts under study, four theories that have their grounds in curriculum innovations and teacher effectiveness with their empirical evidence were explored.

The theory of stimulus-response by Edward Lee Thorndike was the first American psychologist to study stimulus-response (S.R). He conducted a series of experiments on learning with animals and introduced the concept of reward in learning. He was the first to study the subject of learning systematically using standardized procedures and apparatus. He is considered under reinforcement theorist. In reinforcement theory, more emphasis is laid on the control of consequences that follow a response. Responses that are followed by satisfaction or which are pleasurable are reinforced and become more pleasurable in the future. If the teachers use projectors, white boards, audio visual teaching aids during lessons, they will become more effective and this will improve their learners outcome.

According to Thorndike, all learning is a formation of bonds or connections between stimulus and response (SR). The process of forming connections depends on several variables that operate in the environment and the organism. He formulated three basic laws and five supplementary principles of learning Tanyi, (2016).

Another theory used in this study was Lev Vygotsky's child development theory. He believed that children learn about their world through physical interaction. Vygotsky's social-cultural theory asserts that learning is an essentially social process in which parents, caregivers, peers, and wider society and culture play a crucial role in the development of higher psychological functions. His socio-cultural theory declares that social interaction within the family and with knowledgeable members of the community is the primary means by which children acquire behaviours and cognitive processes relevant to their own society.

There is also the social learning theory of Bandura. The goal of the social learning theory is to show that an individual can learn in multiple ways. People make choices on self-reflection, but mainly the environment in which a person finds himself influences the way he behaves and learns. The learner who is at the center of the theory processes different information in different ways. The principle of social learning is assumed to operate throughout one's life. Observational learning may take place at any age. According to Albert Bandura, people learn through observing others' behavior. He is precise that most human behavior is learned observationally through modeling, from observing other forms and ideas of new behavior, and on later occasions, this code serves as a guide for action (Tanyi, 2016).

Lastly, the Adult Learning theory of Malcolm Knowles. This theory describes andragogy as, a theory that gives importance to adult learning by giving learners high autonomy and space for reflection to take place. According to the above theories, the challenges that occur in the teaching-learning process due to innovations need to be handled with care. In education, we can estimate the effects of innovation via learning outcomes or exam results, teachers' formative and summative assessments, formal and informal assessments, and students' self-assessments. To achieve lifelong learning and to bring out citizens that fit into the society the gap of lack of instructional materials, increase workload, professional development, and inappropriate learning environment need to be addressed. Teachers being drivers of curriculum implementation, the researcher sought out the effectiveness of teachers in primary school after some innovations have been carried out. It has been observed that there is a gap between what is practiced and what is on paper. Some innovations are difficult to implement because teachers lack the skills. As a result of this, they turn to neglect part of their responsibility which goes a long way to affect the learner's outcome negatively. Teachers turn to neglect some aspects of innovations due to a lack of instructional materials. Instructional materials play a vital role in teaching as it contributes to the learner's captivation in the lesson which will help the teacher to attain set objectives. If instructional materials are absent it will be difficult for the teacher to carry out his lesson effectively.

The learning environment also affects the teachers' effectiveness. If the environment is not conducive for the learners, it will be difficult for the teacher to teach effectively. With the recent innovations, the school structures are supposed to be changed to suit the teaching-learning process as the teacher lacks equipment and special structures to perform his duty. To remedy this situation, the structures of the schools are supposed to be changed to meet up with challenges of the time.

There is also an increased workload with little time allocated for lessons. Although the timetable has been modified; increase in the period of teaching, it is still not enough for the teacher to accomplish the task. This affects the teacher as he has no time for remediation. To solve this problem, enough time should be allocated to cover the workload. Some teachers turn to ignore aspects of innovation, they still teach using the traditional method of objectives-based approach where the teacher is at the center of learning. Some teachers do not interact with their learners making learning ineffective. It is for the above reasons that,

the researcher decided to carry out the study on the topic: The Impact of Curriculum Innovation on Teachers' Effectiveness in selected primary schools in Yaoundé Municipality.

Statement of the problem

The quality of education depends on the quality of its teachers, but the quality of teachers cannot exceed the quality of the policies that shape their work environment in school and that guide selection, recruitment, and development (OECD, 2018). The output of an education system depends a lot on the acquisition of attitudes, skills, and values needed for proper implementation O.E.C.D.(2018).

In the Cameroon context, some curriculum innovations have taken place over the years in the primary school curriculum. In the last decades there have been a shift in the Cameroon system of education, the system shifted from the traditional method where the teacher was at the center of learning to the New Pedagogic Approach (NPA) to the Competency-Based Approach (CBA) which is presently practiced Primary School Teacher Hand Book(2018). The introduction of innovations in the primary school curriculum is intended to build a good educational foundation for the Cameroon of today and tomorrow. Despite all these it has been observed that, teachers in primary school still find some difficulties in the classroom to apply the new curriculum thereby affecting their effectiveness.

The problem in the primary school is the ineffectiveness of teachers application of the new curriculum. It has been observed that, there exist a gap in the implementation process of the curriculum. The existing gap portrays the inability of teachers to implement the curriculum using the approach they are supposed to use; cooperative learning, integrated theme learning and project based learning. Some teachers neglect the use of cooperative learning which entails the grouping of learners. When learners are put into groups it will facilitate the teaching learning process. Some teachers also avoid the use of integrated theme learning where all learning activities for a month is focused. Furthermore, some teachers avoid the use of project based learning; to carry out projects at the end of each month in order to solve real-life situations. These aspects affect the effectiveness of the teachers as they are unable to meet up with the demands of the new curriculum. Teachers are not effective in implementing the curriculum as some of them lack instructional materials like whiteboards, projectors, videos which can help them function well in their classrooms. Some of the teachers lack the necessary professional development as some of them neglect in service training that is supposed to help them cope with some of their difficulties. The learning environment also play a role as some

teachers are faced with very tight and over crowded classrooms making it difficult to group learners. faced with all these, they can not really function well thereby affecting their effectiveness as they cannot meet up to expectation. The above reasons prompted the researcher to carry out the study on the topic: The impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde Municipality.

Purpose of the study

The purpose of the study was to examine the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde Municipality.

Research question

According to Creswell (2012), research questions are interrogative statements that narrow the purpose-specific questions that researchers seek to answer in their studies. To carry out the study, several questions were formulated to guide the study. The questions shall be subdivided into two: General and specific research questions.

General research question.

What is the impact of curriculum innovation on primary school teachers' effectiveness in selected primary schools in Yaounde Municipality?

Specific research questions

What is the contribution of instructional materials to primary school teachers' effectiveness?

What is the effect of professional development on primary school teachers' effectiveness?

What is the contribution of learning environment to primary school teachers' effectiveness?

What is the effect of workload to primary school teachers' effectiveness?

Research objective

A research objective is a statement of intent for the study that declares specific goals the investigator plans to achieve in a study (Creswell, 2012). According to Amin, (2005), the purpose of the study is sometimes referred to as the general objectives. The objective of the study was to look at two points; general and specific points of view.

General objective

The main objective of the study was to examine the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde municipality.

Specific objectives

Following the purpose of the study the following objectives were stated to guide the study:

To examine the contribution of instructional materials on primary school teachers' effectiveness.

To examine the impact of professional development on primary school teachers' effectiveness.

To examine the impact of the learning environment on primary school teachers' effectiveness

To evaluate the influence of workload on primary school teachers' effectiveness

Research hypothesis

General hypothesis

Ha, there is a significant relationship between curriculum innovation and teachers' effectiveness.

Specific hypothesis

H01: Instructional materials have no significant influence on primary school teachers' effectiveness.

Ha1: Instructional materials have a significant impact on primary school teachers' effectiveness.

H02: There is no significant effect of professional development on primary school teachers' effectiveness

Ha2: There is a significant effect of professional development on primary school teachers' effectiveness.

H03: There is no significant influence of the learning environment on teachers' effectiveness

Ha3: There is a significant influence of the learning environment on primary school teachers' effectiveness

H04: There is no significant influence of workload on primary school teachers' effectiveness

Ha4: Workload has a significant influence on primary school teachers' effectiveness.

Justification of the study

Teachers are the main drivers of curriculum implementation. It is important for teachers not only to be good but also effective. Formally society emphasized the goodness of teachers in terms of their moral and social behaviors leaving out their effectiveness in terms of knowledge and skills (Tambo, 2012). In Cameroon, the Ministry of Basic Education carried out some innovations in the primary school curriculum to ensure quality basic education for all Cameroonian children.

Even though curriculum innovation is carried out to improve the quality of teaching, teachers are reluctant to carry out their function because of the challenges that accompany curriculum innovation. Despite the challenges, innovation is necessary because of its benefits to both teachers and learners.

Innovation in education can lead to better overall outcomes in the school environment. The innovative classrooms are filled with students who are developing new skills and building engagement capacity among their peers. Personalized learning and differentiated opportunities for students due to innovative practices are key components to preparing students for a global, competitive workforce in the twenty-first century. In this digital age, students learning in innovative classrooms can potentially retain more information and process at a deeper level of understanding.

Innovation in education encourages teachers and students to explore research and use all the tools to uncover something new. It involves a different way of looking at problems and solving them. The thinking process that goes into it will help students develop their creativity and problem-solving skills.

Innovation improves education because it compels students to use a higher level of thinking to solve problems. The innovative skills developed will help them in solving real-life situations. Innovative educational practices will help to produce graduates that are equipped with the tools to be successful in an ever-changing society. High-quality learning is important for students and exposing them to innovative educational models in education can increase their readiness.

As society moves towards technological advancement, it is necessary to create conditions in our schools that foster and support innovators and educational entrepreneurs are important. Therefore, improving education as a whole including the quality of teaching as well as the accessibility to innovative tools for the learner, teacher, parents, community, and society are strong justifications for innovation in education (Vikasconcept.com).

Significance of the study

The Cameroon government gives a lot of importance to curriculum innovation to meet up with the changing world and globalization. The findings of this study will be helpful to the following stakeholders

Teachers

The study will enable the teachers to identify the impact of curriculum innovation which goes a long way to affecting the effectiveness of their classroom. They will be aware that the training got from training schools and their certificates are not enough to cope with new ideas implemented every day to satisfy their needs. The primary school teacher will be able to know the implication of not responding to the needs of their learners. This, therefore, means they have to acquire extra skills through in-service training to satisfy their learners' needs and be effective in their classrooms.

Curriculum planners

This study will be of help to curriculum planners who will be informed about the reality in the field. They will get to discover that a gap exists; what is supposed to be practiced is not what is implemented. It will also help the planners to identify the most important aspect of the program, eliminate what is not needed and make some modifications to the program thus improving the curriculum.

The government

The recommendations of this study and suggested solutions will enable the government to review some aspects of the curriculum which might have some converse effects on the development of the country.

The study will expose the shortcomings of teachers. In solving these problems, the government needs to assign inspectors to organize more in-service training for teachers.

It will also lead to the revision of the curriculum of teacher training colleges by the government so that teachers entering the field will be trained on what they will meet in the field of education on their effectiveness.

Researchers

The study will be a booster to other researchers who intend to carry out research in this field of study. This will serve as a guide for them in following the methodology and research designs.

Scope of the study

Thematic delimitation

The study was based on the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaoundé Municipality. Innovation involves the introduction of something new in the curriculum that deviates from the standard practice often because society has changed and so must the curriculum. To meet these changes, innovations are made. An innovation must fit with the goals and objectives of education which usually reflects the needs, interests, values, and problems of the society. Innovation must be appropriate, economical in terms of time, space and resources, and be aligned with developing the philosophy of the society and the school rooted in sound educational theory.

Geographical delimitation

Here, the researcher answered the question of where and how the study took place. The study was addressed to a specific group of people; the teachers. The study was carried out in Yaounde Municipality. The work involved 203 teachers from 22 selected primary schools in Yaounde Municipality.

Theoretical delimitation

In this study four theories were chosen thus; Albert Bandura's social learning theory, Lev Vygotsky's social development theory, the adult learning theory of Malcolm Knowles, and the stimulus-response theory of Thorndike. These theories were chosen as they were proven to be a strong base of curriculum innovation.

Definition of key terms

Curriculum

The curriculum is defined as the reconstruction of knowledge and experience systematic developed under the auspices of the school to increase his or her control of knowledge and experience (Tanner and Tanner, 1988)

Taba (1962) "All curricula no matter what their particular designs are composed of certain elements. A curriculum usually contains a statement of aims and organization of content, it either implies or manifests certain patterns of learning and teaching whether because the objectives demand them or because the content organization requires them," finally it includes a program of evaluation of the outcomes."

The curriculum is the work program for learners placed under the control of the teachers.

Innovation

Afuah(1998) refers to innovation as new knowledge incorporated into products, processes, and services. Innovation is a process that combines science, technology, economics, and management, as it is to achieve novelty and extends from the emergence of the idea to its commercialization in the form of production, exchange, and consumption (Twiss, 1989)

Innovation is the result of scientific work aimed at improving social activities and intended for the implementation of social production.

Innovation is a deliberate change in the curriculum, innovation can also be defined as purposeful change. It is the deliberate change aimed at achieving positive results.

According to okay,(2012) innovation in education is to create something new in the school curriculum. Innovation in education can be in the area of policy, objective, content materials, and method, learning experiences, evaluation, or strategies.

Hassenforder (1974) defined innovation of education as an attempt of any kind to consciously and deliberately aim to introduce change in the education system to improve it.

Curriculum Innovation

It is defined as a deliberate action to improve a learning environment by adopting a method of presenting materials to students that involve human interaction, hands-on activities, and student feedback, according to the annual review of applied linguistics

An intentional process to bring out desired effects and change. Any improvement that is deliberate, measurable, durable, and unlikely to occur frequently (Harris, et al, 1995).

Curriculum innovation is the introduction of new ideas in the curriculum that deviate from the standard practice due to changes in the society

Effectiveness

This is a measure of the match between stated goals and their achievements. It is always possible to achieve easy low standard goals. In other words, qualifying for higher education cannot only be a question of achievements outputs but must also involve judgment about the goals (Fraser, 1994).

A measure of the extent to which a specific intervention, procedure, regime, or service when deployed in the field in routine circumstances, does what it is intended to do for a specified population (Wojtczak, 2002).

Teacher

Mbise, (2008) defines a teacher as a person who has knowledge skills and special training in teaching, explaining, and educating. He is capable of behavioral change in terms of cognitive, psychomotor as well as affective domains cited in Agbor, (2020). "A teacher is the only person capable of improving knowledge and shaping the youth to a wider scope of knowledge. Teachers are capable of living and molding the youths such that their power is paramount as they determine the fate of society. Both teachers and parents live with children for a long time and hence are capable of imparting knowledge, skills, and values that cannot be easily challenged by society" (Nyerere, 1996).

Teachers effectiveness

Teachers' effectiveness is generally referred to in terms of the focus on students, their performance, teacher behaviors, the classroom procedures and conduct that are implemented to better the outcome of the student (KO, et al., 2013)

Teachers' effectiveness is defined as the teacher's ability to utilize approaches, strategies, connection to students, and a particular set of attitudes that lead to improved students learning and achievement in different abilities while incorporating instructional objectives and assessing the effectiveness-learning mode of the students (Strong, et al., 2011).

Effective teachers are those teachers who can achieve the goals which they set for themselves or which others have set for them as ministries of education, legislators, and other government officials, schools, and college administrators.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter was aimed at reviewing related literature on the topic under study. It will describe the body of knowledge under study as well as the theories that support the study. The chapter was sub-divided into three major headings thus: conceptual framework, theoretical framework, and empirical frame work.

Conceptual framework

Curriculum Innovation

Leithwood (1981) introduces the term curriculum innovation as the teachers' ability to use a new program, according to the changes required at different stages of development. It turns out that, in the educational context, innovation involves the introduction of new and useful elements in the pedagogical activity, changes to the content of technology of teaching/learning, and assessment, and is designed to increase the effectiveness of education.

According to Harris, et al.,(1995) curriculum innovation is an intentional and deliberate process to bring out desired effects and change. Any improvement that is deliberate, measurable, durable, and unlikely to occur frequently. Curriculum innovation and change curriculum are defined as deliberate actions to improve a learning environment by adapting a method of presenting materials to students that involved human interaction, hands-on activities, and student feedback(Annual Review of Applied Linguistics).

Curriculum innovation is a managed process of development whose principal products are teaching (and/ or testing) materials, methodological skills, and pedagogical values that are perceived as new by potential adopters (Diaz, 2011).

According to Adaora (2012) curriculum innovation came as a modification of what was existing before the development of ideas, practices, and beliefs. They are fundamentally renewed. Innovation is a deliberate change in the curriculum. Innovation can also be defined as purposeful change. It is a deliberate change aimed at achieving positive results. According to (Okam, 2012) innovation in education is to create something new in the school curriculum. Innovation in education can be in the area of policy, objectives, contents, materials, methods, learning experiences, evaluation, or strategies. This is clear as innovations are carried out in the education system to meet the challenges of globalization. The curriculum has shifted from the traditional method to a curriculum by doing.

Types of curriculum innovation

Curriculum innovation can be classified into four broad categories thus:

- Flexible use of curriculum time.
- Alternative curriculum pathway.
- Concentration on developing learning skills
- Curriculum delivery through themes or inter-disciplinary links rather than discrete subjects.

a.) A Thematic Approach to the curriculum.

Flexible use of curriculum time

In this approach, the curriculum is based on larger blocks of time than on short periods. In this approach, there is flexibility to provide longer sessions for intensive or extended study. In some cases, these are organized for the length of a specific project, in others, each year has an agreed number of extended sessions that could be used as they see fit. An example is to support cross-curricular work to complete course work or to pursue a particular theme or project in depth. When this is done it will enable the teachers to be able to cover their work in all the subjects.

(c)Alternative curriculum pathway

This approach is based on structuring the curriculum in a way that learners could follow different pathways at a certain level of their studies. In this approach, the pupils receive careful guidance in making their various choices and the curriculum is flexible so that they can alter their pathways if their priorities changed. The approach makes sure that teaching is closely matched to an individual's needs. In this approach, schools provide pupils with up to four different pathways. These can range from courses designed to provide additional support to achieving pupils that are attended to accelerate the progress of the more able pupils. This can be done to improve behavior, attitudes, and achievements. The success of this approach will depend on some elements thus: The school has to ensure that students are assigned correctly to pathways. They have to use a variety of assessments to gain a clear view of students' strengths and weaknesses. The students should be involved in deciding which pathway to follow and in regularly re-evaluating its appropriateness. Also, the school has to ensure flexibility to enable students to change from one pathway to another if necessary.

d.) Developing learning skills

In this approach, strategies are specifically designed to develop pupils learning skills. In this, schools can adapt a list of educational objectives and present it in a way the pupils could understand. They can use this to analyze what they already know to decide how to extend further to achieve national curriculum levels. Within approach, schools focus on different degrees, on the discrete development of pupils' learning skills. The activities will help pupils to become aware of how they can learn effectively. Schools can develop programs to support pupils of varying ages with similar learning difficulties. This will help to develop social skills as well as learning skills.

Factors influencing curriculum innovation

When carrying out innovative education we need to fundamentally change the ideas and create a vibrant cultural environment, enhance students' sense of innovation, improve the innovation management system, construct a platform for innovative practices to improve the teaching programs, and build an innovative division team, specific measures are as follows:

- **Changing concepts of education**

In the process of teaching, improving students' awareness of innovation and changing the traditional educational values are assurances of innovative education to be implemented and the major setback. Affected by traditional ideas, contemporary education is a strong dependence on authority and cannot avoid the shackles of traditional thinking, so innovative education is difficult to be carried out, there by resulting in most innovative education as a mere formality and the lack of effective progress. For educational innovation to be realized, the concept of shackles of existing ideology must be broken, and train students to be able to challenge and question existing concepts. Also, students, the innovative spirit should be strengthened, and develop their courage to face the failure of courage to recognize that innovation is not easy and require long-term accumulation and learning. In addition, establish the overall development of innovative educational concepts for students, and practically train innovative talents. Therefore, changing concepts of education and strengthening their sense of innovation is a booster to achieving innovative education

- **Creating a free and active academic environment**

A campus that is lively and has a conducive atmosphere to the cultivation of innovative talents, and innovative culture, can guide students to form innovative thinking by creating a favorable environment for promoting freedom, democracy, and scientific learning

atmosphere. Educational institutions completely emancipate students' minds by organizing a rich cultural program and increasing debate activities, the formation of interdisciplinary communication platforms can promote the students' continued mutual integration of various disciplines to form a complete scientific system. In addition, students should be encouraged to actively take part in research activities, and theoretical knowledge associated with the actual situation, increase their understanding, establish a scientific skepticism, and the courage to challenge dares to innovate.

- **Optimizing curriculum system**

Innovation comes from innovative thinking; creative thinking must be built on solid fundamental and integrated professional knowledge. Optimize the curriculum system is not only to reoptimize the integration of traditional curriculum, the creation of a diversity of elective courses, and enhance the proportion of innovative curriculum, but also to focus on practical courses understanding, combined with practical application and theoretical knowledge, innovative laboratories, schools, and enterprises practical cooperation platform for innovation and the effective application of interdisciplinary platforms can enhance students' ability to apply theory in practice, thinking, analyzed the problem and guided by teachers engaged in a heated discussion and the results effectively organized and back up. Students should be guided to spontaneously learn and think about the relevant content and the collation of relevant learning content as the bases of the final course score. While optimizing the curriculum schools should also fully optimize students' academics, and student and graduate management mechanisms, implement recognition among interdisciplinary elective credits, and promote students' disciplines to intersect. This conducive to the formation of innovation and stimulate students' creative inspiration

- **Reforming teaching methods**

Presently, classroom teaching is still the main form in our country. This is a direct platform to impact knowledge, optimization, and improvement of innovative teaching methods is the first step to developing students' ability. The form of multimedia teaching and discussion groups of open teaching, problem-based, inquiry-based discussion, and other forms of teaching methods help to cultivate students' ability to think independently. This expands students' divergent and critical thinking which improves their ability to innovate.

- **Strengthening practical teaching**

The ability of students to apply knowledge and practice analytical ability can be tested by practical teaching. This can detect the lack of teaching to correct teaching programs and errors. Therefore, educational institutions should vigorously strengthen the building of the practice platform. Schools should use various forms of practical innovation and regularly organize students into corporative enterprise **internship** visits, expand co-curricular activities, and **other operational training activities to broaden channels of practice teaching, and enhance students learning enthusiasm for innovative initiatives.** The process of teaching strengthens the supervision and management of teaching practice, enhances the practice of teaching controllability, maneuverability of a comprehensive audit assessment mechanism, and using a comprehensive multi- index empowerment heavy scoring method. Students participate in teaching in the process of finding a problem and solving practical problems by knowledge. All these enhance students' ability to innovate.

- **Building an innovative educational platform**

The limited resources of educational institutions prevent them not to meet the students' requirement to practice teaching and participating in flexible and innovative activities. Therefore, schools should make full use of social resources. Through the use of practice platforms and related innovation laboratories, the schools' research will be turned into social productive forces, to make up for the lack of funds for schools while training students' capabilities of innovation. Students can also communicate freely on this platform which will help broaden their horizons and raise their awareness of innovation. In addition through open teaching, laboratories, research, and innovative activities build a platform to stimulate students' interest in scientific research to develop their ability to innovate.

Characteristics of curriculum innovation

If your goal is to engage and educate students to the greatest extent possible, you need to consider the benefits of an innovative classroom. An innovative classroom will possess several key traits including:

- **Reflection**

Innovative classrooms engage in constant reflection and inquisitions. They think about what is working as a class and independently and what is not. Reflection can be uncomfortable, but for a class to be constantly evolving and innovating, this process must occur. Furthermore, an innovative classroom will always be asking itself “what if? “students won't be satisfied with

the status quo and will push themselves to be always learning more. Invite and encourage students to ask questions.

- **Constant learning**

An innovative classroom never stops to have its breath. Every event is seen as a teachable moment, and students will benefit from a fast-paced, ever-changing environment.

- **Creativity**

A creative classroom not only comes with unique solutions to everyday problems but also develops the responses necessary to deal with future challenges. A creative classroom fosters' innovation encouraging students to think out of the box.

- **Connection**

An educator must know his or her students as well as the trends that are emerging in the profession. He or she will seek out new techniques and technologies and encourage students to do the same.

- **Principles and routines**

You should exist and function on strong principles and routines. Incorporate strong values to guide the class. The teacher in an innovative classroom will encourage consistency and diligence by establishing hard and fast guidelines for how the day is run.

- **Problem finding**

Innovative classrooms do not wait for problems to appear to them, they actively seek out problems in the classrooms, in their learning, and in the world. Innovation starts with a question and not with an answer. New technologies and understanding can only be developed when students begin to ask questions about "why" or "how".

- **Collaboration**

A collaborative classroom encourages innovation by pushing students to work with others who may be different from them, either in their beliefs, behavior, or background. Collaboration in the classroom encourages discussion, which is the father of all innovation.

- **Variation**

Do not rely on one teaching or learning technique to get a point across. An innovative classroom includes strategies that are always evolving and are different from day to day

- **Goal setting**

Innovative learners will set goals for themselves and crush them. These goals may be large or small or ideally contain some aspect of both types but should guide learners toward innovation.

- **Opportunities for revision**

Not only are innovative learners risk takers, but they also recognize that nothing is ever perfect. As a result, an innovative classroom is resilient and pushes students and teachers to always be changing, adapting, and improving. Innovative learners will look to themselves and others to better every aspect of their performance.

These ten characteristics are important in establishing an innovative classroom. Although they do not necessarily always come naturally, it is important for teachers to be aware of them and to incorporate an action to help develop each characteristic daily.

Importance of curriculum innovation

Innovation in schools today is becoming a way of learning and teaching for both students and teachers respectively. In education, innovation plays a very important role for both students and teachers to research, explore and use the tools available to discover something new. Innovation involves different ways of looking at problems and solving them. It also improves education because it compels students to use a higher level of thinking to solve complex problems. Innovation involves a new way of thinking thereby helping the students develop their creativity and problem-solving skills.

In education, innovation cannot be tested or graded but it can be inculcated and built up in students. According to Vikas the concept school, (2022), they came out with some different ways that the importance of innovative teaching can introduce innovation in the classroom thus;

- **Challenge students by giving them a problem that is both authentic and interesting**

There should be no one project for every student. This means that a project has to be flexible enough for all students to fit it into their interests. This also means that teachers are supposed to know about their students' interests. Authenticity involves using real tools to tackle problems that do not have their answers printed at the back of a book. Ideal problems involve defining some general parameters and tools but leave the specific problem definition up to the

student. An example of such a project could be “ design a musical instrument that you can play without using your mouth or hands”.

- **Give students the basics but keep it short**

Students need to be given some basic information and knowledge so that they can start their projects. The information that the class will expect will be less than what the teachers will expect. The information can be put into organized blocks of five to ten minutes and delivered in a mini-lesson at the start of the class

- **Encourage students to research independently**

If the project design is clear and coherent, students will get the vast majority of information they need from their independent research. This research can be drawn online

- **Build complex skills in students**

The teachers can encourage students to use complex skills to complete their projects. Both the teacher and the students need to become familiar with the tools they use regularly.

- **Check that students have understood the concepts**

In a classroom focusing on highly individualized projects teachers need to monitor what students are struggling with. Optimal learning occurs when students struggle with a problem that they can find the solution to. If they cross over into frustration or confusion, they will likely give up. Teachers should keep careful track of what they should learn to complete their projects.

- **Ensure that students find innovative uses for everyday objects**

Most people see only a single use for an object. This is called functional fixedness. Students can be taught to see beyond this and can also learn how to fashion electric switches out of clothes, and pins, or built a robot. This will help student flex their creative muscles and think beyond the standard uses of everyday objects.

- **Confirm that students know what they still need to learn**

To innovate and solve problems effectively, students need to understand not only what they already know and what they still need to learn. Teachers should build their projects so that students can list the things they understand about their projects as well as the things they need to understand better

- **Do not grade students on innovation and creativity**

Grade workswell when there is one correct answer for a specific problem. For projects that emphasize innovation and creativity, there is no one answer. If you want students to own a problem and find a genuinely original solution for it you cannot motivate them with grades.

The impact of curriculum innovation on teacher's effectiveness

According to Ponnusammy,(2019) curriculum innovation is where teachers design learning, experimenting with the curriculum and instruction and is an influential process. From a postmodern standpoint, learning is seen as being unique to an individual, requiring connections that are wholly different in each person's case. Hence, teachers' active experimentation during curriculum innovation becomes influential opportunities, because they create unique learning trajectories and therefore become embedded teacher learning spaces. Curriculum innovation can be considered an essential strategy for bringing about improvement in education. The teacher is at the center of curriculum innovation. According to Lochner, et al., (2015) teachers are central to whether a curriculum is delivered consistently, effectively, and with efficacy to enable the support of students' progress and growth. When innovations are implemented faithfully it will improve the effectiveness of the teacher rather than the result of innovations or the aspects that makes it work.

According to Vikas, the concept school, (2022) innovation in education encourages students and teachers to research, explore and use all the tools to uncover something new. Innovation involves a different way of looking at problems and solving them. It also improves education because it compels students to use a higher level of thinking to solve complex problems. Innovation does not just mean the use of technologies or inventions though this can contribute to innovation. Innovation involves a new way of thinking, thereby helping students develop their creativity and problem-solving skills. The encouragement of innovation is inevitable as the world is now like a global village. To meet up with the challenges of globalization, there is bound to be innovation in the systems of education. The teacher is highly concerned here since the implementation of any change or innovation in education is fostered by the teacher.

The role of teachers remains instrumental in the success or failure of a curriculum Loflin (2016)According to Hall & Hord, (2015) researchers have supported the need to thoroughly understand teachers' roles and concerns during the implementation of a new curriculum.

When considering the roles that teachers take on in the execution of innovation, it is necessary to fully understand teachers' concerns within specific areas of change, Lochner, et

al.,(2015). One of the leading roles of the teachers includes delivering a curriculum with fidelity, which means implementing the curriculum faithfully and keeping it in step with its purpose and design. Considering the vital role teachers play, determining what exactly has caused a lack of fidelity could help in determining if the curriculum itself is the problem Hondrichet al.,(2016). They also maintain that teachers may be more effective if they are given the freedom to adapt and modify a curriculum when warranted, yet the instructional support a given curriculum offers often supports students' engagement with the specific curricular tasks the curriculum outlines.

Teacher beliefs about educational practices influence the actions that occur in the classroom, which can offer possible reasons for a lack of fidelity Buddak,(2015). The role of fidelity in accurately determining if a curriculum has achieved its intended purpose calls attention to another reason that teachers' roles need consideration. When a curriculum is carefully implemented, the researcher can accurately in sights whether the curriculum has met its intended objectives, which can then provide better measures of student performance Buddak(2015).

Since teacher's fidelity influences students learning and the successful implementation of the curriculum, assessing fidelity needs research. Piasta, et al., (2015) identified four dimensions for assessing fidelity: (a) adherence, (b) exposure, (c) quality of program delivery, and (d) participant responsiveness. Fidelity is multidimensional because a curriculum generally consists of many components necessary for full implementation; teachers always choose a specific aspect of a curriculum to implement while disregarding others based on personal variables such as beliefs, concerns, or contradictions philosophy (Buddak, 2015; Hondrich et al., 2016; Piasta et al., 2015).

The teacher stands at the center of achievement for any educational change. This assertion is shared by many but at times there is resistance from the teacher who is at the center of this change or innovation especially if the change does not target the external structure of a school system. A considerable majority of teachers do not even want to hear anything about innovation or change new forms of teaching. They feel forced to take part in the change and development process.

Some self-confident teachers may regard new approaches, ideas, and recommendations of educational researchers, instructional psychologists, teachers' developers, and didactic coaches concerning their field as being of no use and no importance.

Curriculum Innovation and Teachers' Effectiveness

According to the annual review of applied linguistics Kaiira(2020) curriculum innovation is defined as deliberate actions to improve a learning environment by adapting a method of presenting materials to students that involve human interaction, hands-on activities, and student feedback. In this definition three important aspects can be seen, that may affect the teachers. The first aspect is to allow the teachers to have an improved learning environment following a definite method. The second aspect is to involve the learners in practical activities and lastly the presentation of feedback by the teachers.

Currently, innovation has become part and parcel of most systems of education across the globe O.E.C.D(2018). To meet up with the challenges of the 21st century, many countries are involved in carrying out innovation in their system of education. Innovation entails a new way of approaching and solving problems. It also pushes students to solve real problems at a higher level of understanding.

According to Kaiira (2012), innovation means doing things in a new way, and in curriculum, it means adopting different designs for learning to make learning more meaningful for 21st-century learners. As per this definition of curriculum innovation, looking at the educational reforms taking place in different countries in the world, innovation is now an expectation in the teaching profession.

Teacher effectiveness and quality teaching have been a contentious issue in education for a long, mainly because what constitutes each of the two terms is still debatable AbouAssah&Kushkiev(2017). According to Chetty, et al., (2014) researchers agree that teachers are one of the most important school base resources in determining students' future, academic success, and life outcomes. As a result of this, there has been a strong emphasis on improving teachers' effectiveness as a means of enhancing student learning.

Goe (2007), amongst others, defined teacher's effectiveness in terms of growth in students learning, typically measured in terms of students' standardized assessment results.

Chetty, et al., (2014) found that students taught by highly effective teachers as defined by students growth percentile (SGPs) and Values Added Measures (VAMs) were more likely to attend college, earn more, live in higher income neighborhoods, save more money for retirement, and were less likely to have children during their teenage years.

This potential of a highly effective teacher to significantly enhance the lives of their students makes it essential that researchers and policy makers properly understand the factor that contributes to a teacher's effectiveness namely, teacher experience, teacher knowledge, and teachers' behavior.

According to Kovacs, 2017, cited in., Noor(2020) points out that the outcome of teaching benefits the learners. Firstly, the teacher creates learning opportunities. The opportunities are created by and among teachers for students to gain benefit. Next, the balancing factor from teaching is learning on the part of the student. Students exhibit learning behavior through patterns and discourse in the classrooms. Finally, learning needs to be seen not as a receptive behavior of learners; learning can be seen also as the environment where the learners are put. The schools and institutions are responsible to provide a conducive environment for learners.

At this point, many authors have recognized the importance of curriculum innovation and its implementation by teachers in the classroom. The implementations depend solely on the teachers who are the principal actors in the field. The role of teachers remains instrumental in the success or failure of a curriculum Loflin(2016).

Considering the many roles defined in the literature, teacher fidelity stands out as being important but also for being inconsistent among teachers Loflin(2016).

When considering the roles that teachers take on in the execution of innovation, it is necessary to fully understand teachers' concerns within specific areas of change Lochner, et al., (2015). One of the leading roles of the teachers includes delivering the curriculum with fidelity which means implementing the curriculum faith fully and keeping in step with its purpose and design. Fidelity and the trust for the association for curricular implementation can highlight teacher altitude towards a curriculum.

Teacher beliefs about educational practices influence the actions that occur in the classroom which can offer possible reasons for a lack of fidelity Budak(2015). Fidelity is accurately determining if a curriculum has achieved its intended purpose and calls attention to another reason that teachers require consideration. When a curriculum is implemented with fidelity, researchers can achieve accurately in sights into whether the curriculum has met its intended objectives which can then provide a better measure of student performance Buddak(2015).

Professional development.

Professional development offerings are key for supporting teachers in new initiatives Smith & du Troit(2016). One of the 11 benefits of professional development include teachers' increased comfort and skill level for implementing new curricula. Relevant and effective P.D has been found to promote confidence and a greater understanding of objectives Lia(2016). Teacher professional development involves many processes, actions, and mechanisms that are inevitably mediated by the cultural, social, political, and economic features and conditions of each particular context Tan & Dimmock(2014).

Having time and research to develop meaningful P.D that will consider the needs, concerns, and experiences of the teacher will be valuable and likely to influence positive growth for the teacher (Lia, 2016). Coldwell, (2017) found a connection between teachers' confidence and professional development. According to Coldwell, (2017), P.D increase skills, and knowledge, which enables teachers' confidence in specific areas; this, in turn, leads to increase job satisfaction and professional motivation. There are vital points in professional development effectiveness that are the influencing factors and concerns, which can potentially direct the outcomes of the P.D. The quality of P.D, personal motivation, organizational support, and government mandates are all under the areas of teachers' concern and barriers to implementing a curriculum faithfully. All these factors influence the way teachers respond to professional development Coldwell(2017).

Looking at P.D, several studies have found that teacher efficacy stands out as an area supported by effective and relevant P.D Margolis et al.(2017). They assessed teacher efficacy in integrating new curriculum standards into content areas in classroom teaching. According to them, efficacy is a primary factor in a teacher's competency level when integrating different content areas in a curriculum. They, therefore, recommended relevant P.D to meet the needs of teachers. Maintaining teacher confidence and reducing anxiety through deliberate choices in P.D content help to support teachers through curriculum changes Margolis et al.,(2017).

To Kyndt, et al., (2016) professional development is looked at from the different types and the related effects on the teachers. They throw light into teachers' attitudes, beliefs as well as experiences from curriculum implementation through informal learning for professional growth. Informal learning opportunities include teacher collaboration, team planning, and mentoring. Informal learning even though not organized (as formal professional

development), allows teachers to work together to reduce the feelings of isolation they often experience. Perhaps most important as noted by Kyndtet al., (2016), is that experience does not appear to affect new learning as much as personal attitude does. Therefore, understanding the difference in attitudes could help to break down the barriers to full-curricular implementation. This shows that professional development must not necessarily be formal; Most teachers hope that professional development will be relevant to their content areas and this will allow them to collaborate and solve problems.

According to the literature, understanding teachers' concerns will help administrators when choosing the professional development that will be most relevant to teachers Bakir et al.,(2016). This notion was substantiated by Bautista, et al.,(2016) through a study in which they investigated teacher beliefs and priorities and professional development needs when implementing a curriculum. They found that teachers commonly show an eagerness for opportunities to strengthen their expertise in curriculum areas and they need professional development to do so. Teachers' belief also influences their view of the curriculum. For example, if teachers perceive themselves as being unprepared or unfamiliar with a curriculum, then these beliefs will influence how they respond to and teach the curriculum Bautista, et al.,(2016).

Instructional Materials

Instructional materials are educational resources, for example, teaching and learning aids brought or made to improve students' knowledge, abilities, and skills to monitor their assimilation of information, and contribute to the overall educational development (Lidon(2019). According to (Harwood,2017; Polikoff& Koedel,2017, &Steiner,2017) the standard of instructional materials in the classroom for curriculum delivery directly impact the quality of learning experiences. The learning experiences for the different types of learners are directly impacted by the instructional materials teachers take into the classroom. When deficient instructional materials are used in the classroom, it negatively affects the learning experiences of the children. Therefore, instructional materials must be of high quality. Instructional materials created by mainstream teachers need to be connected to ongoing and sustained professional learning in content knowledge and pedagogical content knowledge in their discipline and/or level of curriculum delivery Steirner(2017). Learners' interests and diversity are seldom considered in the selection and/or production of instructional materials.

According to Chen-Gaddini, et al.,(2017) learners must have their voices premeditated in the acquisition and/or production of instructional learning materials. This improves the effectiveness of the selected and produced instructional materials. The important and central role of instructional materials in the classroom can never be over-emphasized Perry et al., (2017). Therefore, instructional materials need to be of high quality,

According to UNESCO (2016), high-quality instructional materials demand considerable thought and careful design to achieve the needed impact. Teachers need support, guidelines, and resources to produce high-quality instructional materials for effective curriculum implementation. Achimugui&Onojahi, (2017) asserts that teachers need to be encouraged to attend seminars, workshops, and conferences to improve their knowledge and skills in handling the production, selection, and utilization of instructional materials. Teachers need to be aware of how instructional materials and other resources they use are likely to be helpful or unhelpful in structuring their learners' thinking (Harwood,2017; Polikoff&Koedel,2017). Besides the physical presence of a learned teacher in the classroom instructional materials are the most important and significant resources needed at the classroom level Lyimo, et al.,(2017). The use of high-quality instructional materials will help to facilitate teachers to think out of the box and guide discoveries while making learning meaningful to learners. They help teachers also to manage unintended and spontaneous interactions with students that skew learning outcomes positively or negatively Burch, et el.,(2016).

Physical facilities complement instructional materials. School physical resource facilities are the material resource dispensed for staff and students to optimize their achievement and productivity in curriculum delivery Chism&Pang(2014). The United Republic of Tanzania (U.R.T;2013), indicated that physical facilities include classrooms, laboratories, libraries, I.C.T facilities, dormitories, health, and kitchen facilities as well as help facilities for students with disabilities help to enhance students' access to the curriculum. To Chism&Pang(2014),physical resources and facilities produce and maintain inclusive, diverse, and creative educational environments which contribute to high achievement and performance for all learners. They produce the opportunity for learners to interact with the instructional materials present for effective curriculum implementation and enhance student learning.

Learning environment

The learning environment(L.E)comprises the psychological, social, cultural, and physical setting in which learning occurs and in which experiences and expectations are co-created among its participants(Rusticus, et al.,2020,Shochit et al.,2013).The learning environment consists of physical locations, context, and cultures that students learn BakhShialiabad, et al.,(2015).

With the help of developing technologies, the learning process has become much more effective because of modern equipment and tools that facilitate learning and increase interactivity among students(Raja & Ngasubramani,2018).Students can learn complex concepts in a controlled environment via augmented reality(A.R) and virtual reality(V.R)head sets, making learning immersive and experientialU.K Authority(2019).

The learning environment has an essential role in the learning process Vinales(2015). According to Ozerem&Akkoyunlu,(2015), the learning environment helps learners develop their skills, knowledge, attitudes, and behavior.

Even though the learning environment has been traditionally used as a synonym for a physical classroom,it has been changed with modern digital technologies, techniques, and strategies to provide more effective and efficient learningLaw et al.,(2016).The concept of technology-enhanced learning has been named differently such as computer-based learning, web-based learning, mobile learning, augmented reality-based, and virtual reality-based Cheng & Yang,(2020).Many current technologies including mobile devices,web-2.0,A.R,and V.R, have been utilized increasingly in the learning process by taking advantage of their unique featuresCubillo et al.,(2014)

WorkLoad

The management of work load in school is an important aspect that can make or mar the goals of education. This is because where these tasks or duties are not coordinated efficiently; expected results will be far from realization. Work load according to Nweke and Dollah(2011) is the totality of academic teaching work and committee workload assigned to a teacher for the attainment of the overall educational objectives in the school. This is in terms of lesson note preparation, test and assignments, examinations, and any other routine work that may be assigned to teaching staff by a higher authority.

The 21st Century is characterized by educational search and inquiry for a total understanding of the increase in teachers' workloads and their connection to the teaching quality and performance of teachers.

According to Wiebe & Mac Donald, (2014) as cited in Beck, (2017) workload is generally described as where teachers have too much to do and not enough space to practice teaching as considered by teachers to be a valuable activity.

During the past two decades, teaching is becoming more challenging as a profession; with more paperwork, more bureaucracy, and more unruly classes. Teachers have many things in mind, their attention is divided into many tasks, and they also consider many things such as teaching students who lack motivation, maintaining discipline in the classroom, confronting general time pressures and workload demands, being exposed to a large amount of change, being evaluated by others, having challenging relationships with colleagues, administration, and management, and being exposed to generally poor working condition prospects, unsatisfactory working condition, the ambiguity of the teachers' role, poor relationship with colleagues, pupils and administrators, and job security. Teachers are exposed to many sources of stress Hassan (2015). Due to excessive amount of paperwork and at the same time teaching children, teachers compromise the relaxation they needed, and this might lead to stress Tahseen, (2015) Work overload is one of the factors causing burnout among teachers that causes reduce physical and emotional energy Malik, (2019). Factors that cause exhaustion may include more extension hours of teaching and the need for ideal conditions that the workplace could not provide (Demirel & Cephe, 2015). Teachers experience stress because of their workload as they plan lessons, organize activities, develop curriculum, manage extra-curricular activities, supervise classes, provide information, maintain discipline, provide cover for teachers' shortages and absences, maintain records, administer timetables, evaluate and assess students' performance in addition to the motivation of students by words and actions Desouky & Allam, (2017).

Teachers' Effectiveness

Researchers agree that teachers are one of the most important school-based resources in determining student's future academics sources and lifetime outcomes

Chetty et al., (2014) found that students taught by highly effective teachers as defined by the student growth percentile (SGPs) and value-added measures (VAMs) were more likely to attend college, end more, live in higher income neighborhoods, save money for retirement,

and were likely to have children during their teenage years. Teachers' effectiveness is generally referred to in terms of the focus on the student, their performance, teachers' behavior, the classroom procedures and conduct that are implemented to better the outcome of the students

(KO, et al., 2013). Teachers' effectiveness centers on good teaching, processing appropriate and sufficient knowledge of the subject matter, evaluating the students, identifying their appropriate learning needs and requirements, and possessing skills regarding the usage of questions to engage and challenge the students are also important aspects of teachers effectiveness and consolidating understanding is considered to be the effective use of assessment for learning (KO, et al., 2013)

Characteristics of effective teachers

The behavior exhibited by teachers determines to an extent the effectiveness in the classroom and the impact they have on student achievement. According to James, H.S reviewed by Jenifer, P.(2018) came out with six characteristics of effective teachers thus:

- The teacher as a person
- Classroom management and organization
- Organizing and orienting for instruction
- Implementing on instructions
- Monitoring students and potential
- Professionalism

a.) **The teachers as a person:**

The teacher stands as a representative of the content and the school. The way a teacher presents himself reflects the administrators, colleagues, parents, and students. At times students link the concept to a particular subject a teacher teaches and the way it was taught. A teacher who shows enthusiasm and competence for a content area may likely transfer those feelings to the student. In addition, the way the teachers relate to the pupil has an impact on the pupil's experience in the class. The teacher's personality is very important when looking at the characteristics of an effective teacher. Many aspects of effective teaching can be cultivated even though it is difficult to effect change in an individual's personality. The good qualities that present the personality of teachers are thus:

- Assumes ownership of the classroom and the student's success.
- Uses personal experience as an example in teaching.
- Understands the feelings of students.
- Communicates clearly.
- Dresses appropriately.
- Works actively with students.
- Uses appropriate language.
- Addresses students by name.
- Treats students equally and fairly.
- Has positive dialogue and interactions with students outside the classroom.
- Maintains a professional manner at all times.
- Invest time with single students or small groups of students out of the classroom.

b.) Classroom management and organization:

A classroom speaks for itself, signs for its user's style. In a well-organized classroom, there are usually various instructional organizers such as rules posted on walls, books, and other didactic materials are organized so that often-needed ones are easily accessible. The furniture arrangement and classrooms display often reveal how the teacher uses space. The organizations of the classroom and the students make it possible for the classroom to run itself creating the interaction between teacher and students. Some of the positive aspect that helps the classrooms, management, and organization are thus:

- Position chairs in groups or round tables to promote Interaction.
- Manages students' behavior through clear expectations and firm and consistent responses to students' actions.
- Maintain a physical environment where instructional materials and equipment are in good repair.
- Covers wall with pupil's work.
- Emphasizes students addressing one another in a very respectful and positive manner.
- Manages emergencies as they occur.
- Maintains acceptable personal workspace.
- Discipline students with dignity and respect.
- provide positive reinforcement and feedback.
- Post appropriate safety procedures.

- post classrooms and school rules.
- shows evidence of an established student routine for responsibilities and student leadership.

c.) Organizing and orienting for instructions

Some teachers plan at home, and others work after school drafting unit plans and incorporating various objectives. Irrespective of where or how teachers plan and organize instruction the outcome of effective work is seen in the classroom. An observer in the classroom of an effective teacher will understand the work by reading the daily lesson objectives and activities posted. Furthermore, the teacher can share what the class will be doing to follow up on the lesson of the day. In some schools, teachers are required to submit weekly lesson plans, these plans note accommodations for different learning styles or the variety of instructional approaches that will be used.

It is important to note however that a lesson plan is not an end-all; it is merely a description of what should be occurring in the classroom. A good plan should have the following qualities:

- Lesson plans are written for every school day.
- student's assessment and diagnosis data are available.
- assessment data and pretest results are included in the preparation of the lesson.
- lesson plans are aligned with division curriculum guides.
- stated learning objectives are incorporated into lesson plans
- lesson plans have clearly stated objectives.

Lesson plans include the use of available materials.

- Lesson plans include activities and strategies to engage students of various ability levels.
- Lesson plans include required accommodations for students with special needs.

D.)Implementing instruction

Effective teaching combines the essence of good classroom management, organization, effective planning, and the teacher's characteristics. The classroom presentation of materials to the students and provision of experiences for the student to make authentic connections to the materials is vital. The effective teacher facilitates the classroom to bring out the best

performance from each student. In the classroom, students will achieve instructional goals in a positive classroom environment. If the classroom management component is lacking or the teacher lacks rapport with the student the best lesson plans will be of no use. The positive qualities of implementing instructions are thus:

- Uses student questions to guide the lesson.
- Uses pre-assessments to guide instruction.
- Develops elements of an effective lesson.
- uses a variety of activities and strategies to engage the students.
- Monitor student engagement in all activities and strategies.
- provides feedback (verbal, non-verbal, and written).

e) Monitoring student and potential

Effective teachers have a sense of how each student is doing in the classroom. They use a variety of measures to monitor and assess their pupil's mastery of a concept or skill. When the student is having difficulty, the teacher targets the knowledge or skill that is troubling the student and provides remediation necessary to fill the gap. Communication with all the parties responsible for the success of the student is very important to monitor the student's progress. The monitoring of the student's progress is not the sole responsibility of the teacher; an effective teacher facilitates students understanding of how to assess their performance, that is, assist them in metacognition.

An effective teacher who has observed and worked with a student has a sense of the potential that the students possess, encourages the student to excel, and provides the push to motivate the student to make a sustained effort when needed. Some of the positive qualities that make an effective teacher monitor the student's progress are thus:

- Enable students to track their performances.
- Grades homework
- Gives oral and written feedback.
- Circulates in the room to assist students and provide praise.
- Considered multiple assessments to determine whether a student has mastered a skill.

f.) Professionalism

The effective teacher engages in dialogue with students, colleagues, parents, and administrators and demonstrates respect, accessibility, and expertise. Effective teachers are

easily identified through their questioning techniques and instruction given in the classroom. The effective teacher uses the following qualities to achieve his goals:

- Communicate with the family of students.
- Maintains accurate records.
- Focuses on students.
- Practices honest two-way communication between teachers and administrators.
- Performed assigned duties.
- Volunteers to assist others.

Factors influencing teachers' effectiveness

A.) Content knowledge and teachers' pedagogies

The teacher must be versed with the content of knowledge to teach, to ensure that correct concepts are taught to the students. If a teacher is versed in what he or she is teaching, it will be easy for the teacher to explain concepts well to the students. In addition, teachers need special skills to apply in their classrooms, which will influence and reflect on their student's achievements (Kosher, et al., 2013). These special skills known as teaching pedagogies could influence the effectiveness of teachers. Teachers who provide individual support for students tend to improve their performance. A teacher who discusses freely with the class and encourages students to help others who are slow will tend to increase students' achievements.

B.) Teacher's collaboration

Teachers who are skillful and knowledgeable collaborate to improve student achievement. When teachers collaborate, it enhances the quality of teaching as they learn from each other, this will increase the students' performance and the teachers professionally. It provides the teacher the opportunity to help one another in teaching.

Methods of measuring teacher's effectiveness

A.) Classroom observation

This is used to measure observable classroom processes including specific teacher practices, holistic aspects of instructions, and interactions between teachers and students. It can measure broad overarching aspects of teaching or specific or context-specific aspects of practice. When this is done, it will provide rich information about classroom behaviors and activities.

It is generally considered a fair and direct measure by Stakeholders. It can also provide information useful for both formative and summative purposes

B.) Instructional artifacts

In this method, structured protocols are used to analyze classroom artifacts to determine the quality of instruction in the classrooms. This may include lesson plans, teacher assignments, assessments, scoring rubrics, and student work. This can be a useful measure of instructional quality if a validated protocol is used. If raters are well-trained for reliability, and if assignments show sufficient variation in quality. This method is practical and feasible because artifacts have already been created for the classroom.

C.) Portfolio

This is used to document the large range of teaching behaviors and responsibilities. This is used widely in teacher education programs and in states of assessing the performance of the teacher candidates and beginning teachers. This method is comprehensive and can measure aspects of teaching that are not readily observable in the classrooms. It can also be used with teachers of all fields. It provides a high level of credibility among stakeholders and is also a good tool for teaching reflection and improvement.

c) Teacher self-report measure

Teachers report what they are doing in classrooms. They may be assessed through surveys, instructional materials, and interviews. This can vary widely in focus and levels of detail. This can measure unobservable factors that may affect teaching such as knowledge, intentions, expectations, and beliefs. It provides the unique perspective of the teacher. It is very feasible and cost-efficient and can collect a large amount of information at once.

d.) Student survey

This is used to gather student opinions or judgments about teaching practice as part of the teacher's evaluation and to provide information about teaching as it is perceived by students. Provides perspectives of students who have the most experience with teachers. It can also provide formative information to help teachers improve practice in a way that will connect with students.

e.) Value-added model

This is used to determine teachers' contributions to students' test score gain. It may also be used as a research tool. It provides a way to evaluate teachers' contribution to students learning, which most measures do not. Requires no classroom visits because it linked students and teacher data can be analyzed at a distance. Entails little burden at the classroom or school level because most data is already collected for NCLB purposes. It also benefits the students as it assists them in solving certain difficulties since the collaborating teachers teach in different ways.

F.) Challenges faced by teachers

Teachers face challenges daily in school and this can be a factor influencing their performance. These challenges range from unprofessional working conditions, extra workload, overcrowded classes, poor and unattractive salaries, lack of teaching material, and so on. These challenges could affect the effectiveness of teachers. For instance, an overcrowded classroom congested with students will affect the teaching style of the teacher, as he will employ the traditional method since he cannot work freely with students.

G.) Teacher career satisfaction

Teacher career satisfaction is paramount, as this influences the productivity of the teachers in school (Deneire et al., 2014). Teachers who are highly satisfied with their career will be willing to give their best out for their work unlike those who are unsatisfied. These teachers would be excited, cheerful, and helpful to their students and colleagues. The unsatisfied teachers may not be able to provide their full potential and this can affect their students. There are negative effects of career dissatisfaction which include absenteeism, high level of stress, and unable to meet students' needs.

H.) Influence of years of teaching experience and education level

The teacher's level of education influences the student's achievements. A teacher with a higher level of education will be able to improve on students' achievements; nevertheless, it is uncorrelated with the productivity of the one who is less educated.

In addition, teachers' years of experience have a considerable effect on the student's performance. A teacher with more experience will do better than one with lesser years of experience.

Models of teachers' effectiveness

Justin Raudys (2018) cited in www.prodigygame.com came up with four teacher evaluation models with examples. The models can be outlined below:

a.) The Value-Added Model (VAM)

This model measures how teachers contribute to the progress of their students. VAM takes the test scores of students from previous years and information about their background and predicts their test scores in the following year. Data is then collected on whether students exceeded the expectations or not. The teachers' value-added estimate is calculated by finding the average differences between the actual and predicted scores of the student. In theory, this method allows the comparison of the effectiveness of different teachers by showing their results; how their students improve from one testing period to another.

Advantages of VAM

- VAM is a simple calculation once implemented. That means it takes less time than teachers' observation.
- In theory, it allows school administrators to make comparisons among teachers that work under them.

Disadvantages of VAM

VAM ratings could be influenced by the students assigned to teachers rather than by their teaching ability.

- the model exposes the best and the worst teachers but it is hard to define those who land in between.
- if students' scores are already high, it is difficult for teachers to continually raise them. This is known as the ceiling effect: if students' scores are not increasing, teachers will rank badly in the VAM. It is clear from real-life examples that the value-added model, while effective to a certain degree, can have a nasty turn for the worst when left unchecked.

b.) Teacher observation

Watching teachers in the classroom is a tried and tested way for school administrators to see how effective the teachers are. Seeing how a teacher handles the classroom, what kind of atmosphere they bring to the group, the content they have prepared for their class, and how they handle their responsibilities is a way to a reliable evaluation.

Advantages

- Well-designed rubrics allow for consistently reliable results
- Allows school administrators to be completely aware of what goes on in their schools.
- Gives administrators the ability to see extra details in the classroom such as a teacher's rapport with the students, the body language of both parties, and whether students are treated with respect.

Disadvantages

- Observing teachers in class takes a lot of time of school administrators' busy schedules.
- First impression matter: a negative impression at the start has been proven to linger in the mind of the observer.
- Teachers' observation can be influenced by bias on the part of the observer.
- When the school administrator is in the classroom both behavior of the students and the teachers may be different since the kids don't want to get in trouble and the teacher is probably nervous

C.) The framework model

Developed in 1996 by Charlotte Danielson, the framework of teaching (FFT) was originally meant to be the definition of good teaching. This framework is based on four different domains. They cover the four essential responsibilities of teachers:

- planning and preparation.
- instruction.
- classroom environment.
- professional responsibilities.

The goal of this evaluation model is to help observation become more meaningful, giving both school administrators and teachers the ability to improve their skills. When the teachers used the framework evaluation model, positive results are produced. When schools use FFT for teacher evaluations, the teachers develop their skills and the students improve their grades. Some of the benefits of using the FFT for teacher evaluations are:

- The discussion will be more focused.
- Reflection on instructional practice will increase.

- Feedback will be more evidence-based, rather than being subjective

D.) The Marzano-focused teacher evaluation model:

Dr. Robert Marzano and Dr. Beverly Carbaugh developed this model, this research-based teacher evaluation model narrows down the art of teaching to essential competencies. These competencies are focused into four different categories:

- Standard-based planning.
- Conditions for learning.
- Standard-based instruction.
- Professional responsibilities.

In a similar approach to the framework model, the Marzano model focuses not only on the actual instruction given by teachers but also on the atmosphere of the classroom and the behind-the-scenes work involved in teaching. When teachers use this model the benefits will be thus:

- Teachers will grow professionally.
- Teachers will learn how to engage students better.
- More focus will be given to planning and creating learning goals.

Management of teacher's effectiveness.

Teachers play an important role within the education system. Therefore, the role of teachers cannot be underestimated as their roles include preparing lesson plans and notes, instructional delivery, motivating and mentoring students, maintaining discipline in school, and monitoring and evaluating students' progress among others. For teachers to devote their efforts to perform these roles, there is a need to see that they are valued and are being properly supplied with things necessary for them to accomplish their duties (Nyamubi and Nyamubi, 2017). Therefore, it is very important to motivate teachers to create a conducive learning environment for improved teachers' effectiveness.

Also, for the teachers to be effective, it is the responsibility of the principal or head teacher to apply total quality management to improve the commitment of teachers towards instructional delivery. Abdul Azeez and Abari (2016) stated that fundamental to the sustenance of quality of teachers in the management of weapon of total quality management (TQM). This tool stimulates teachers' commitment to performing their responsibilities. In the same light (Onyali and Nnebedum, 2016) stated that one of the possible ways to ensure that teachers can

meet up their responsibilities lies in the principals' application of total quality management (TQM). If total quality management is applied, it will improve teachers' effectiveness.

Monitoring of teachers plays an important role as far as teachers' effectiveness is concerned. According to (Onyali and Nnebedum, 2016) monitoring is a continuous process of observing and recording staff activities to enhance the attainment of predetermined objectives. Principals monitoring practices include observing teachers' classroom delivery, checking their marking schemes, lesson notes, and their level of participation in staff meetings, school assembly, and extracurricular activities. Also, in the same direction Ndundet al., (2015) pointed out that various activities are monitored during the teaching and learning process and these include: teachers' note preparation, physical attendance of classes as well as their teaching and reporting time in the school. When teachers are regularly monitored, it could provide information on teachers' performance, which could form the bases of decision-making in the school.

Furthermore, the instructional decision domain will help to enhance teachers' effectiveness. This domain is concerned with involving teachers in setting classroom-learning objectives, selection of instructional materials, classroom organization, and control among others. The curricular domain is involved in developing schemes of work, timetables, subjects, and modules offered by each class. The management domains are concerned with involving teachers in human and financial resources management. Involving teachers in financial management is enhanced through constituting them during the budgeting process in the school. Since teachers are central in the management of schools, involving them in decision-making is very sensitive. The neglect of it by principals could cause a conflict and this may affect the realization of the schools' objectives. When teachers are only informed about decisions made, they might not clearly understand why and how those decisions were made (Yao,2014). The involvement of teachers in the decision-making process could help the principal in determining the training needs of staff in the school. Thisunpleasant situation in schools may therefore not make teachers effective.

Theoretical frame work

In this part of the work theories and models related to this study will be treated. Celso (2006) cited by Moustafa, (2014) claimed that a theory can be thought of as a statement of testable relationship that may exist between and among a set of variables associated with a certain phenomenon. According to Stem,(2007) cited in Moustafa, (2014), a theory is a logically

organized sentence of a relationship that constitutes a set of observations. Theories are based on assumptions and specified relationships among variables. They guide research by giving hypotheses that can be tested. This work is based on four theories thus:

- Adult learning theory by Malcolm Knowles
- Social learning theory by Albert Bandura
- Social development theory by Lev Vygotsky
- Stimulus-response theory by Edward Lee Thorndike

Adult learning theory

The theory was developed by Malcolm Knowles in 1968. Adult learning theory or andragogy is defined by (Pratt, 1993 cited in Agbor,2020) as learning strategies focused on teaching adults. It aims to show how adult learning is distinct and identify the learning styles which suit them best. In the words of Crawford, et al., (2018) it has been conventionally viewed as the learning styles of adults where they manage their knowledge, have more real experience, understand their ways, and may be different and new ways. The pedagogical process model by Malcolm Knowles (1974) stresses that when handling adults' trainers need to be skilled in:

- Diagnosing the need for learners; learners feel a need to learn.
- Formulating program objectives(content) that will satisfy the needs, and goals of the learning experiences.
- Establish a climate conducive to learning, a learning environment based on mutual respect.
- Design the pattern of learning experiences, learning process uses learners' experiences.
- Create a mechanism for mutual planning; learners share responsibility for planning.
- Conduct learning experiences with suitable materials and techniques.
- Evaluate the learning outcomes and re- diagnosed learning needs; have a sense of progress towards goals.

Knowles' 4 Principles Of Andragogy

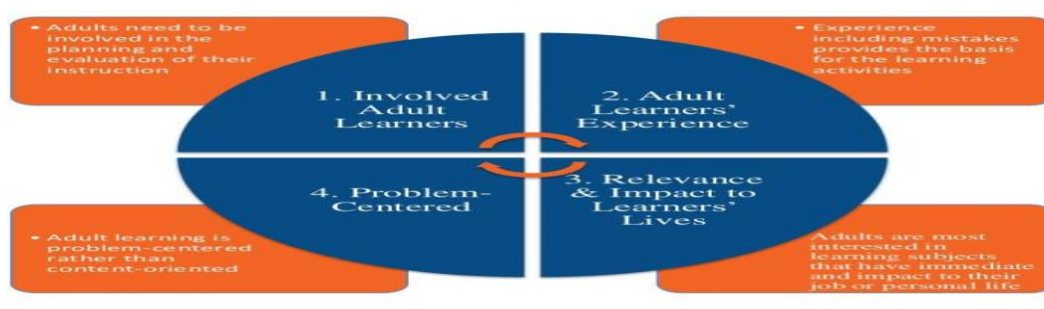


Figure 1:Diagram of how adults learn (Knowles,1968).

Relating the theory to our work

In terms of this research, andragogy allows teachers to set their time, pace, resources, and methods of receiving mentoring services. Andragogy provides teachers the opportunity to take on higher responsibilities in their self-development and learning process to gain experience in their field. (Knowles et al., 1984cited Agbor,2020) stresses on self-directed learning which supports adults' way of learning or acquiring knowledge. Also, programmers and any other method of support for teachers should adapt the theory of adult learning for their learning. This strongly includes principals' knowledge of adult learning theory is critical is knowing that beginner teachers, being young adults, have equal rights like experience teachers without any form of discrimination.

The Social learning theory

The social learning theory was invented and developed by the Canadian psychologist Albert Bandura. Bandura, (1977) cited in Tanyi, (2016) stated that social learning theory approaches the explanation of human behavior in terms of continuous reciprocal interaction between cognitive behavioral and environmental determinants.

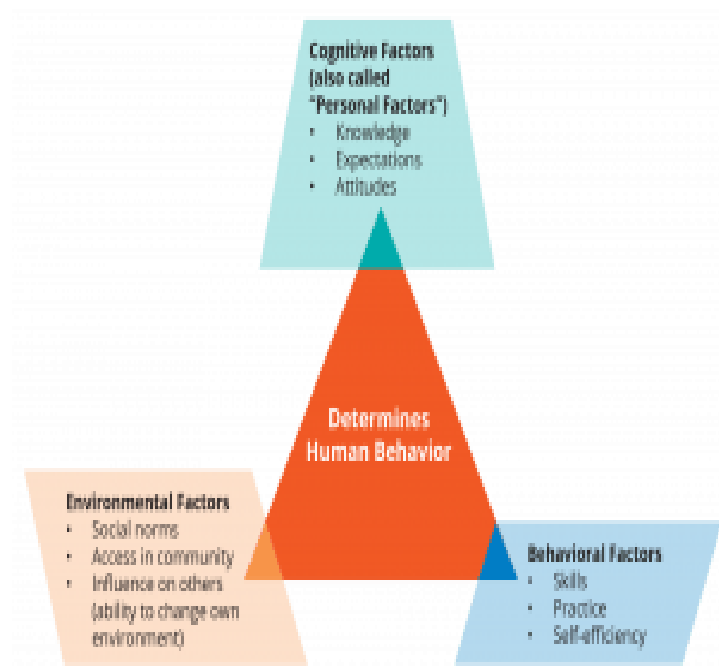
The goal of the theory is to show how individuals learn in different ways. People make choices on self-reflection, but the surrounding environment in which individuals find themselves influences the way they behave and learn. The learner who is at the center of this theory processes different information in different ways. The principle of social learning is assumed, to operate throughout one's life. Observational learning may take place at any age. According to Bandura, people learn through observing others' behaviors, and the outcomes of these behaviors. He emphasized that most human behavior is learned observationally through modeling from observing others, individuals form ideas of new behavior, and these coded ideas, later on, serve as a guide for an action

Looking at the social learning theory, the mechanism of learning and the formation of an individual's knowledge is through observation (Bandura 1977). According to Bandura observational learning is governed by four interrelated mediational mechanisms thus;

- Attention processes.
- Retentional processes.
- Motor reproduction processes.
- Incentive and motivational processes.

The social learning theory strongly emphasizes one's cognition. It suggests that the mind is an active force that constructs one's reality, encodes information, and performs behaviors on the bases of values and expectations. The core component of SLT, as referred to above is observational learning and the mental model of observed behaviors to implement in classrooms and these behaviors become routine and do not require prior modeling and planning (Bandura, 1977 cited in Agbor, 2020)

Figure 2: Diagram of three factors of the social learning theory (Bandura, 1999).



Relating theory to our work, pupils learn from one another through observation, innovation, and modeling. In the learning process, the pupils observe their teachers' behaviors and later on try to imitate and give out what they have learned in school to become models in the society they find themselves in.

Stimulus-Response theory

Stimulus response theory was proposed by Edward Lee Thorndike, who believed that learning boils down to two things; Stimulus and response. He conducted a series of experiments on learning with animals and introduced the concept of reward in learning.

According to Tanyi, (2016), all learning according to Thorndike is the formation of bonds or connections between stimuli responses (S .R). In explaining the stimulus-response theory of learning, Thorndike developed three concepts:

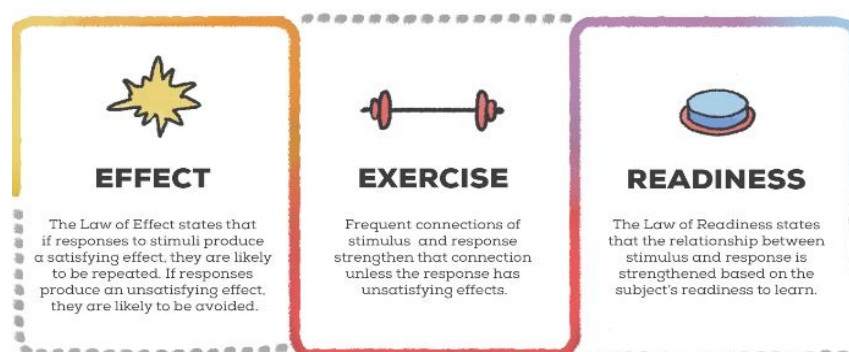
- Law of effect
- Law of exercise
- Law of readiness

The law of effect explains; that learning occurs if and only if the response affects the environment. The law of effect maintains that when a modifiable connection between stimulusresponses (SR) has been made, it is strengthened if it resulted in satisfaction and it is weakened if it led to annoyance Tanyi, 2016.

The law of exercise states that the more frequently a connection is made between stimulus-response (SR) the stronger the connection and when the connection between the stimulus-response is not made over a long period the connection will be weakened.

The law of readiness states that when the connection is ready to act, to do so is satisfying, when it is not ready to do so it is unsatisfying. (Tanyi, 2016).

Figure 3: Diagram explaining the concept of reward in learning by Thorndike.



Relating theory to our work

The teacher can use this theory in his/her classroom effectively which will yield positive results. The teacher should always make the classroom to be pleasant to his learners and he should also enjoy his teaching work. The learning experiences and other activities should be

meaningful to the learners and arranged chronologically. Teachers should always give guidance, praise, and other encouragement to their learners to make them have confidence in whatever they do.

Furthermore, teachers should always give more opportunities for pupils to use the knowledge they get in class. Also, whenever taught materials are reviewed it maintains connections. Also drilled should be encouraged to maintain the bondage of S-R.

Also, in a classroom setting the teacher should be patient he should always wait till the learner is ready to learn, and he should give experiences that will help to enhance the readiness of the learners. The teacher should also use aptitude tests in various subjects to determine the toughness of the learners.

Socio-cultural theory of cognitive development.

Vygotsky's sociocultural theory reviews human development as a socially mediated process in which children acquire their cultural values, beliefs, and problem-solving strategies through collaborative dialogues with more knowledgeable members of society. When we interact with others, we try to internalize what we learn. For example, a child struggles with building bricks that contain letters of the alphabet A-Z. At first, he performs poorly but with the help of his mother he was able to arrange it properly, with this he learned how to do it. The child later mastered how to arrange the alphabet in the presence of his parent. The mother on the other hand, gradually let the child allows the child to perform the skill alone making the child competent

There are three theories in the social development theory which include the role of social interaction in cognitive development, the more knowledgeable other, and the zone of proximal development.

The Role of Social interaction in Cognitive Development.

Vygotsky's theories stress the fundamental role of social interaction in the development of cognition (Vygotsky, 1978), as he believed strongly that community plays a central role in the process of "making meaning". Vygotsky's theory opposes that of Piaget who states that children's development must necessarily precede their learning, whereas Vygotsky argues that social learning comes first before development.

The social development theory of Vygotsky states that the cultural development theory of a child is firstly on the individual or personal level called intra- psychological. According to Vygotsky, every function in a child's cultural development appears twice; first on the social level and later on the individual level; and between people (inter- psychological) and then in the child (intra- psychological)

Figure 4: Diagram of social development theory.



The More Knowledgeable Other(MKO)

The more knowledgeable other refers to someone who has a better understanding or a higher level than the learner, concerning a particular task, process, or concept.

When we think of a more knowledgeable other, we refer to an older adult, a teacher, or an expert. This is not necessarily the case. At times a child's peers or an adult's children may be the individuals with more knowledge or experience. MKO could also be electronic devices like computers and cell phones.

The Zone of Proximal Development

The zone of proximal development is an important concept that relates to the difference between what a child can achieve independently and what a child can achieve with guidance and encouragement from a skilled partner. For example, the child could not solve a puzzle game by himself or could have taken a long time to do so, but the child was able to solve the puzzle following the interaction with the parent and has developed competence in this skill that will be applied to a future puzzle. Vygotsky views interaction with peers as an effective way of developing skills and strategies. He suggests that teachers use cooperative learning exercises where less competent children develop with help from more skillful peers within the zone of proximal development.

Figure5: Diagram of ZPD



Adapting the theory to our work.

The researcher finds this theory relevant to the topic under study. The aspect of social interaction will help the teachers cope with the challenges of innovations. When learners are grouped together the slow ones are pulled by the fast ones thereby yielding good results. We can say that, all the above aspects will foster the cognitive development of learners which cannot be minimized. It is well known that education is built on the cognitive, affective, and psychomotor domains.

Models of Curriculum Innovation

Scholars have proposed different models of innovation. Ronald Havelock(1969) came up with three main models of innovation thus;

- Research development and diffusion (RD &D) model
- Social interaction (S.I) model
- Problem-solving (PS) MODEL

The Research Development and Diffusion (RD&D) Model.

In this model, an idea of practice is conceived at the central planning unit and then fed into the system. This model of curriculum innovation in recent years has been dominant in the case of Cameroon. RD & D is effective where curriculum development is done on a large scale and ideas have to reach wide geographical areas and isolated users. It is a highly organized, rational approach to innovation. The RD & D model follows a logical sequence of activities thus:

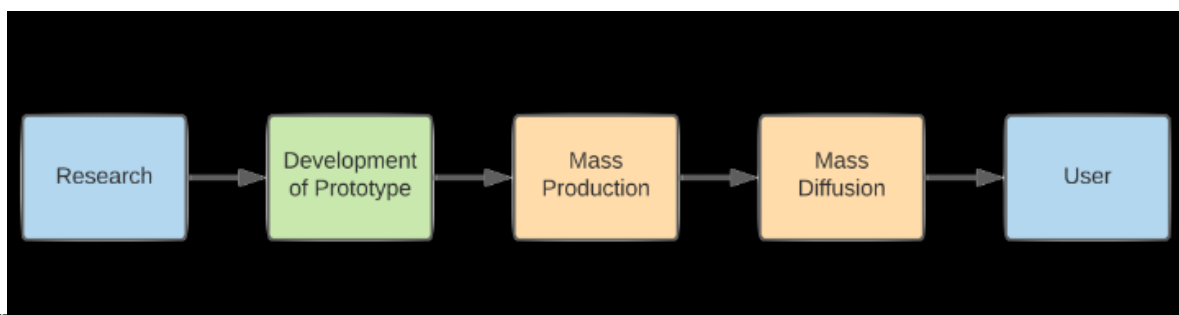
- Basic research by a central project team that develops new curriculum devises and designs prototyped materials.

- Field trials of the prototyped materials and redesign them where necessary.
- Mass production of the modified prototyped materials.
- Mass dissemination or diffusion of the innovation through courses, conferences, and workshops.
- Implementation of the innovation by the users (school, teachers, and pupils).

The model of curriculum innovation is highly centralized whereby the content of the curriculum is decided by the hierarchy. The teacher in this model is a passive participant. The model supports a skill-based view of teaching where curriculum innovation provides teachers the opportunity to update their skills to be able to demonstrate their competence. The model is powerful in presenting a narrow view of teaching and education where the standardization of innovation opportunities overshadows the need for teachers to be active in identifying and meeting their own needs.

In the model below it can be seen that the model follows a sequence with the arrows pointing to the direction to follow.

Figure 6: Diagram of RD&D Model of Curriculum innovation (Adapted from Kiira, 2012)



The Social Interaction (SI) Model

The model grew out of the progressive education movement in the 1930s when it split into two camps: one that focused on the individual student as a learner and the other on society as an education laboratory (Ellis, 2004). This view sees students as capable of reforming society with support from leadership to provide a curriculum that may become, “a classroom without walls” and a community where students and teachers can ultimately change the world (Ellis, 2004). This model operates through social interaction and emphasizes communication. It stresses the importance of interpersonal networks of information, opinion of leadership, personal contacts, and social integration. The model also has its roots in the notion of democratic communities “helping students to be as well as to become” (Sergiovanni, 1994). The SI model also stresses the relationship of the individual to other people and society, and

the instructional methods used by teachers in the classroom to facilitate group work. The model is student-centered, and students are encouraged to interact with each other in a structured setting. When implementing this strategy, students often serve as facilitators of content and help their peers construct meaning

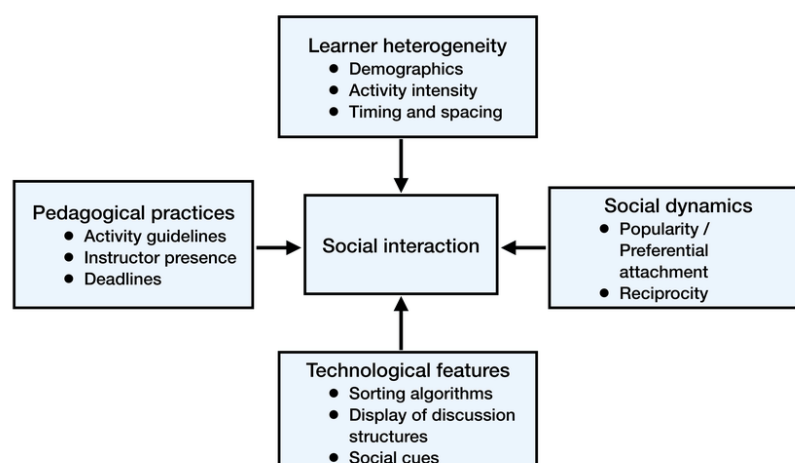
The student is to question, reflect, reconsider, seek help and support and participate in group discussions. The three most common strategies include:

- group projects
- group discussions and
- cooperative learning (Patel 2013).

This model is typical of what is demanded of the innovations in the present primary school curriculum. The curriculum is child-centered on the teacher acting as a guide. All the activities are centered around the learners as they carry out projects, group discussions, and cooperative learning which leads to the development of skills and competencies at the end of their learning program.

The interactions are often face-to-face but may also be interactive using online tools and technologies. The steps of instruction using interaction often vary but these steps.

Figure 7: Diagram of the Social Interaction Model



The Problem Solving (PS) Model

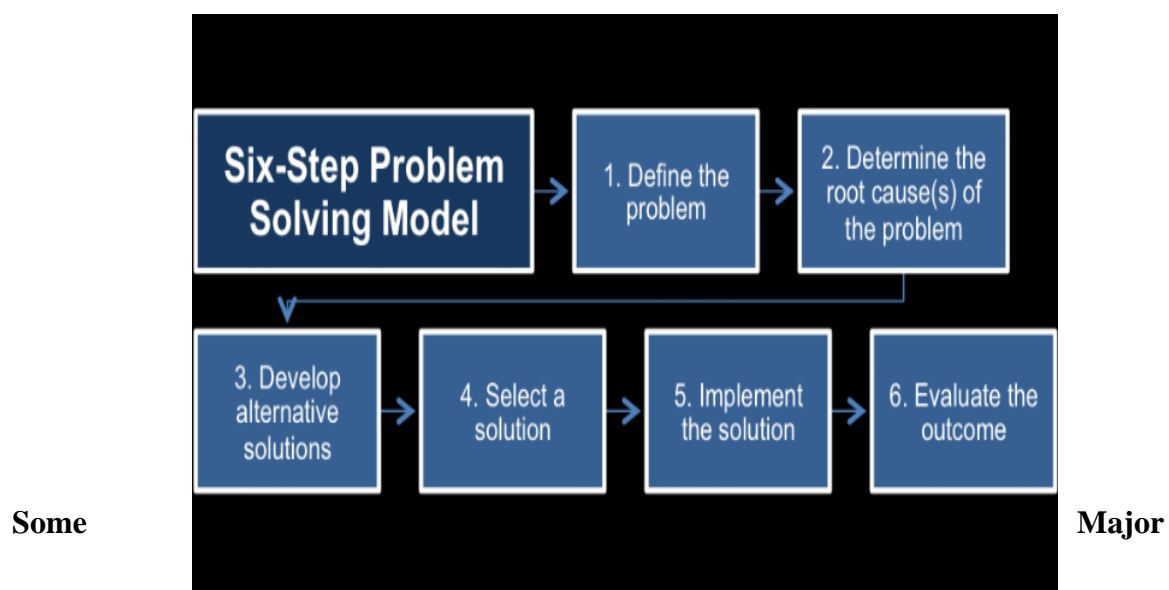
The PS model is based on the assumption that innovations are part of a problem-solving process. The PS model is referred to as a “periphery-center” approach to innovation.

In this model, the receiver is actively involved in finding an innovation to solve their unique problem. The model is flexible enough to encompass all types of innovation, including materials, methods, and groupings of learners.

Thus, the PS model is local, usually limited in size, and may not be of high quality compared with more centralized approaches to curriculum development.

This model is linked to curriculum innovation where learners are expected to develop skills and competencies to solve real-life problems. The following steps are characteristics of the PS model

Figure 8: Diagram of the problem Solving Model(Bishop,1985).Adapted from KiiraKarkka
Adapted from KiiraKarkkainen(2012).



Innovations in the Cameroon Primary School Curriculum.

Emphasis has been laid on:

- Regrouping of subjects into five domains;
- Basic knowledge (60% of learning time)
- Communal life and national integration (5% of learning time)
- Vocational and life skills (20% of learning time)
- Cultural identity (5% of learning time)

- Digital literacy (10% of learning time)
- This is to enable learners to build a solid foundation in literacy, STEM, and practical skills (key driver for the fourth industrial revolution)
- Time table (increase in the duration of periods between 30 minutes and 1 hour per subject to give learners ample time to work at their pace).
- Schemes of work (integrated schemes to show how the integrated learning theme for the month will be covered/ broken up).
- Learning/ teaching approaches project-based learning (PBL), Integrated- Theme Learning (ITL), and cooperative learning (CL).
- Possibility of creating and contextualizing teaching in the learner's geography context
- Classroom practices (learning centers, portfolios, projects, child-friendly games, outdoor activities, children's production, and creativities.)
- Teaching corners aimed at and occupied all the learners at the same time.

Adapted from the teacher's handbook for the Cameroon nursery and primary school curricula August (2018).

Empirical review

According to a study by Kapur(2018)University of Delhi.Teacher effectiveness is generally referred to in terms of the focus on students performance,teacher behavior,the classroom procedures and conduct that are implemented in order to better the outcome of the students. Teacher effectiveness besides focusing upon the performance of the students centres on the number of areas; effective teachers have to be clear about instructional goals,possess sufficient knowledge about the content of the curriculum and the strategies for teaching, communicating appropriately with the students of what is expected of them following appropriate teaching techniques and materials to make learning usefull.They should be knowledgeable and aware about the students,adapting instructions to their requirements,anticipating misapprehension in their existing knowledge, teaching students meta cognitive strategies and providing them with opportunities to master them , addressing higher as well as lower level cognitive objective,monitoring the understanding and performance of the students by providing feedback,integrating their instruction with that of other subject areas and accepting responsibility for students outcomes Ko,Summons,&Bakkum(2013).

According to scholars, effective teachers demonstrate a deep understanding of the curriculum. They plan, teach and assess to promote mastery for all students. Effective teachers provide high quality instructions to increase student achievement for all students by providing researched based instruction filled with technology integration.

According to Chetty et al.,(2014) researchers agree that teachers are one of the most important school-based resources in determining students' future academic success and lifetime outcomes.

Chetty et al.,(2014) found out that students taught by highly effective teachers, as defined by student growth percentile (SGP) and Value-added measures (VAMs),were more likely to attend college,earn more, live in higher-income neighborhoods, save more money for retirement and were less likely to have children during their teenage years. This potential of a highly effective teacher to significantly enhance the lives of their students makes it essential that researchers and policymakers properly understand the factors that contribute to teachers' effectiveness.

Zumwalt(1986cited in Agbor,2020), expresses this key role of teachers in a very strong term *“there can be no excellence without first-rate teachers. One can change the curriculum, buy more materials, refurbish the physical environment, lengthens the school days but without good teachers change will not produce the desired effect”*.

When considering the roles that teachers take on in the execution of innovation, it is necessary to fully understand teachers' concerns within specific areas of change Lochner et al.,(2015). One of the leading roles of the teacher includes delivering a curriculum with fidelity, which means implementing the curriculum faithfully and keeping it in step with its purpose and design. Considering the vital role teachers play, determining what exactly has caused a lack of fidelity could help in determining if the curriculum itself is the problemHondrich et al.,(2016).

They maintain that teachers may be more effective if they are given the freedom to adapt and modify a curriculum when warranted yet the instructional support a given curriculum offers often supports students' engagement within a specific curricular task the curriculum outlines.

According to Buddak,(2015), teacher beliefs about educational practices influence the actions that occur in the classroom, which can offer possible reasons for lack of fidelity. The role of

fidelity in accurately determining if a curriculum has achieved its intended purpose calls attention to another reason that teachers' roles require consideration.

When a curriculum is implemented with fidelity, researchers can achieve accurate insights into whether the curriculum has met its intended objectives, which can then provide a better measure of student performance Buddak, (2015). Since teachers' fidelity influences students learning and the successful implementation of a curriculum, assessing fidelity requires research. According to Piasta et al., (2015) identified four dimensions for assessing fidelity: (a) adherence, (b)exposure, (c)quality of program delivery, and (d) participants' responses.

Fidelity is multidimensional because a curriculum generally consists of many components necessary for full implementation; teachers often choose specific aspects of a curriculum to implement while disregarding others based on personal variables such as beliefs, concerns, or contradictions in philosophy (Buddak,2015; Hondrich et al.,2016; Piasta et al.,2015).

The above review clearly shows that,the teacher is the most important single factor as far as curriculum implementation is concern. The success of any curriculum innovation will depend on how it is perceived ,understood and interpreted by teachers.From the above analyses by various authors, it can be said that curriculum innovation has an impact on teachers effectiveness.

Definition of indicators and variables.

Definition of variables: A variable is a characteristic or attribute of an individual that researchers can measure or observe to collect information to address the purpose of their study Cresswell(2012).

According to Amin (2005),a variable is a characteristic in which people can differ from one another. A variable is an element whose value can change and take other forms when we make one observation to another.

Variables are classified into dependent and independent variables. The two types of variables used in this study are:

Independent Variable (I.V): According to Cresswell,(2012) an independent variable is an attribute or characteristic that influences or affects an outcome or dependent variables. The independent variable influences the dependent variable through the intervening variable. Sometimes an intervening variable exists in research and sometimes it does not. In research

studies, independent variables can be called factors, treatments, predictors, determinants, or antecedent variables. Regardless of the name, researchers measure this type of variable distinctively from the dependent variable, and they identify this variable as worthy of study because they expect them to influence the outcome. The independent variable is the presumed cause in a study and it is usually plotted on the x-axis. The Independent variable for this study is; The impact of curriculum innovation.

Dependent Variable(DV):Cresswell,(2012) defines a dependent variable as an attribute or characteristic that is dependent on or influenced by the independent variable. Dependent variables are also referred to as outcome, effect, criterion, or consequence variables. According to Sapsford (1998 cited in Agbor,(2020) dependent variables are variables that receive the effect of independent variables. This is what the researcher is interested in. The dependent variable presumed effect in a study and it is placed on the Y-axis in graphs. The dependent variable of this study is; Teachers’ effectiveness.

Indicators: Research indicators are measurable entities that serve to define a concept practically. An indicator can be seen as a true representation of a variable as in both dependent and independent variables.

In this study; “The impact of curriculum innovation on teachers’ effectiveness in selected primary schools in Yaounde Municipality”.

The indicators of independent variables are:

- Instructional materials.
- Professional development.
- Learning environment.
- Workload.

The indicators of the dependent variable are:

- Classroom management and organization.
- Professionalism.
- Monitoring students and potentials.
- Students assessment.

There is no way we could have given meaning to this study without placing it within the related literature and explanatory theories. The literature review was divided into conceptual,

theoretical, and empirical frameworks to provide the reader with an insight into the study. The theories saw various things to be considered to make teachers effective in the field. The various indicators of the independent variables were also explained. We then move to the next chapter which is focused on research methodology.

Synoptic Table

Topic	Variables	Problem	Objectives	Indicators	Modalities	Theories
The impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde Municipality	<u>Independent</u> The impact of curriculum innovation <u>Dependent</u> Teachers' effectiveness	The inability of teachers to implement the new curriculum faithfully in their classrooms	<u>General</u> -To examine the impact of curriculum innovation on teachers' effectiveness <u>Specific</u> -To examine the contribution of instructional materials on teachers effectiveness -To examine the impact of professional development on teachers effectiveness -To examine the impact of learning environment on teachers effectiveness -To evaluate the influence of work load on teachers effectiveness	_Instructional materials _Professional development _Learning environment _Work load	<u>Likert scale</u> _strongly agree _agree _strongly disagree _disagree	Social learning theory of Albert Bandura _stimulus response theory of Thorndike _social development theory of Vygotsky _Adult learning theory of Malcom Knowles

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter focused on the research methods used in the collection of data or information which was a questionnaire. The different sub-headings under which the study was addressed are thus: research design, area of the study, the population of the study, research instrument, sampling technique, and data analysis.

Research design

A research design is a procedure for collecting, analyzing, interpreting, and reporting data in research studies of a particular set of questions or hypotheses Creswell (2014). In other words, the research design sets the procedure for the required data, the methods to be applied to collect and analyze this data, and how all this is going to answer the research question(Gray,2014). Saunders, et al.,(2012) defined research design as a general plan to answer a research question. As a systematic approach to conducting a scientific inquiry, it brings together several components, strategies, and methods to collect data and analyze it. There are a few ways to approach a research design type, but the literature has not always been clear-cut on these types(Abutabenjeh,2018).

Some of the research designs include Descriptive research design, experimental research design, correlational research design, and explanatory research design. The research design used in this study was the descriptive survey research design. The survey design was used through a quantitative measure (questionnaire). Survey research designs are procedures in quantitative research in which investigators administer a survey to a sample or the entire population of people to describe the behaviors, attitudes, opinions, and characteristics of the population. As a result, the survey researchers' collect quantitative, numbered data using questionnaire or interview and statistically analysed the data to describe trends in responses to questions and to test the research question or hypothesis. The survey researchers also interpret the meaning of the data by relating the results of the statistical test to past research studies.

According to Check&Schutt,(2012,p.160)survey research is defined as "the collection of information from a sample of individuals through their responses to questions". The survey

design was used because we had to collect information from a relatively large group of respondents. This is because it would have been difficult to question each member of the target population without drawing up a survey. Moreover, survey design was used because it has the advantage of providing a tremendous amount of data and information in a short period. The survey design was also used because the thought and opinions of teachers were necessary for the study concerning the impact of curriculum innovation on teachers' effectiveness. The data collected and analyzed was from a small group of people considered to be representatives of the entire population of the study.

Area of the study

Any research considered scientific is carried out in a geographical area. The research was carried out in Yaounde the Centre Region of Cameroon. This area consisted of seven subdivisions namely: Yaounde1, Yaounde2, Yaounde3, Yaounde4, Yaounde5, Yaounde6, Yaounde7. This site was chosen because the area is easily accessible and the major focus was on primary schools. These primary schools ranged from public, to private and lay private. In all, there were twenty-two primary schools that were chosen.

Target Population

The target population is a grouping of all the cases having common characteristics and from which the results will be generalized. Creswell (2012) defines a target population as a group of individuals with some common defining characteristics that the researcher can identify and study. Amin (2005), defines the target population of study as the complete collection or universe of the entire element we are interested in a particular investigation. The population of this study was made up of all the primary school teachers of selected primary schools in Yaounde Municipality. The population of the study is referred to as the target population. The target population of the study comprises teachers of selected primary schools in Yaounde Municipality.

The researcher selected the teachers from public schools, and private and lay private schools in Yaounde. A total of two hundred and three (203) teachers were selected using the stratified sampling technique from twenty-two(22) primary schools. These schools included the following: G.B.P.S Bastos I, G.B.P.S Bastos II, G.B.P.S Mballa II, G.B.P.S Source Madagascar, Wecare Primary school Damas, Oxford Primary school Nsimeyong, Firm foundation Primary school Damas, Omega Primary school Damas, G.B.P.P.S Gp I Yaounde, Tassa primary school Ekounou, Emergence Primary school Ekounou, Godbless primary

school Ekounou, Greener pasture primary school Ekounou, AHMIDAF Bilingual primary school Ngouso, Meno Bilingual primary school Ngouso, St . Augustine Bilingual primary school Ngouso, G.B.P.S Biyem –AssiGpIIA, Franky primary school, Apostolic primary school, C.B.C Etougebe, G.B.P.S Biyem –Assi IA, G.B.P.S Nkolbisson.

Sampling technique of the study

According to Amin (2005), a sample is a portion of the population whose results can be generalized to the entire population. Sampling is the process of selecting elements from a population in such a way that the sampled elements represented the population. Sampling means selecting a given number of subjects from a defined population.

The sampling technique is a plan specifying how elements should be drawn from a population. The sample resulting from the application of this procedure was unbiased. The exercise made use of teachers in such a way that, those who were present filled the questionnaire, and those who were not present were eliminated. There was a total of 203 teachers (which was the sample size of the study) were available at the moment when the researcher was administering the research instrument and were asked to respond to the research instrument. The sample of this study was obtained from the parent population using the stratified sampling technique. According to Amin (2006p.242), convenience sampling involves selecting whoever is available at a given moment for the researcher conducting the study. The Krejcie and Morgan table was used in selecting the appropriate sample size.

Table 1 Distribution of Sample population.

Sub divisions	Schools	Total Population	Sample size
Yaounde 1	G.B.P.S Bastos1	18	10
	G.B.P.S Bastos 2	19	15
	G.B.P.S Mballa II	20	10
Yaounde II	G.B.PS Sous Madagascar	20	20
	We care primary school	15	15
	Oxford Primary school	20	15
	Firm Foundation	20	12
Yaounde III	Omega primary school Damas	20	20
	G.B.P.P.S Gr 1 Yaounde	20	10

	Tassah Primary School Ekounou.	18	6
YaoundeIV	Emergence Primary School Ekounou.	18	5
	God bless Primary school Ekounou	18	5
	Green Pasture Primary School	18	8
	AHMIDAF Bilingual Primary School Ngouso.	18	3
Yaounde V	Meno Bilingual Primary School Ngouso.	18	8
	St. Augustine Bilingual Primary School Ngouso	18	9
	G.B.P.S Biyem – AssiGp.II A.	18	3
Yaounde VI	Franky Primary School Obili.	18	8
	Apostolic Primary School Obili.	18	8
	C.B.C. Etougebe.	14	5
	G.B.P.S Biyem – Assi IA.	18	2
Yaounde VII	G.B.P.S Nkolbisson.	18	6
	TOTAL	400	203

Source : Field data,2022

Description of the research instrument.

Instruments are research tools that enhance the collection, observation, and measurement of quantitative data. The instrument may be an observation checklist, inventory, a test, questionnaire, tally sheet (Creswell, 2012). The questionnaire was used since most of the information needed for this study was obtained through sampling the opinion of the respondents. According to Amin (2005), a questionnaire is a self-report instrument used for gathering information about variables of interest in an investigation. It can be seen as a written list of questions that are answered by several people so that information can be collected from the answers.

The questionnaire was used because since most of the information needed for this study was obtained using sampling the opinion of respondents, it required the use of a questionnaire, the questionnaire was also used because it permitted the researcher to cover a wide geographical area since researchers approach respondents more easily through questionnaires than any other method. Questionnaire was used because the group targeted (teachers) could read and understand the questions and provide the information required by the researcher. The questionnaire was equally used because it was relatively cheap and easy to administer, and through the questionnaire, the researcher tend to reach a large number of his sample in a short period. For this reason, the study was quantitative.

The survey employed a Likert scale and participants had to strongly Agree (SA), Agree (A), Strongly disagree (SD), and Disagree(D) with statements about teachers' effectiveness. The title of the questionnaire was questionnaire for teachers and it was constructed concerning the objectives, questions, hypothesis, and literature of the study which served as guidelines for the construction of the questionnaire. However, the questionnaire was intended to test the research hypotheses. The questionnaire consisted of one type of question: close-ended questions.

Close-ended questions require the respondents to choose the correct answer to the question by placing a cross (X) at the appropriate answer. This type of question aimed at limiting the scope of responses by respondents to help keep them focused on the subject and to help in interpretation. Closed-ended questions are accompanied by strongly agree (SA), Agree (A), strongly disagree (SD), disagree (D). The degree of Likert was scale from 4-1 in accordance with respondent opinions.

Validation of research instruments

Validity of research instrument

Validity refers to the accuracy with which an instrument measures what it intends to measure. Drost,(2011) refers to validity as “the extent to which a measure adequately represents the underlying construct that it is supposed to measure” When the researcher finished constructing the questionnaire, to ensure validity, the researcher went through the questions to determine if the questions were related to the stated objectives and also to determine if there was any correspondence with the stated objectives and hypotheses. The research instrument was vital in gathering the data that was relevant to the study. In this study, the instrument was constructed by the researcher under the guidance of the supervisor. The validation of the instrument was done on two levels, face and content validity.

Face validity

According to Haridakis et al., (2010) validity refers to a study measuring what it intends to measure, and maintaining validity requires a researcher to conduct a study using tools that will represent data valid to the study itself. Amin, (2005) cited in Agbor, (2020), states that a research instrument is said to be valid if it measures what it is supposed to measure. To him, validity is the appropriateness, meaningfulness, correctness, and usefulness of any inferences a researcher draws based on data obtained through the use of an instrument. To measure the validity of the questionnaire, the questionnaire was read by my supervisor and five of my

classmates who read through and pointed out mistakes for corrections to be made. Before the questionnaire was administered, the researcher passed through the head teacher and was aided by the assistant head teacher. Although some teachers were busy, the researcher had to wait for them to finish and come to the head teacher's office during break, some teachers were very busy filling pupils' marks on report cards but they still created time to fill the questionnaire.

Content validity

According to Amin, (2005, p.286) "content validity is the extent to which the content of an instrument corresponds to the content of the theoretical concept it is designed to measure," in other words, content validity refers to the degree to which test actually measures or is specifically related to the threats for which it was designed. The questionnaire or the instrument was constructed using various indicators. The researcher's supervisor and five of her classmates were asked to assess the content validity of the questionnaire. They examined each item on the questionnaire and confirmed that the questionnaire was relevant to the objectives and variables of the study.

Reliability of the questionnaire

According to Creswell (2012), reliability means that individual scores from an instrument should be free from sources of instrument error and consistent. According to Amin, (2005) reliability is the degree to which an instrument consistently measures what it intends in measuring. An instrument is reliable if it produces the same results whenever it is repeatedly used to measure concepts or traits from the same respondents even if used by different researchers. That is, a reliable instrument gives consistent results. Test-retest reliability is also known as stability reliability. It refers to the degree to which scores on the same tests by the same individual are consistent over time. To establish the reliability of the instrument, test-retest reliability was used.

The questionnaire was administered to 10 teachers. After one week, the questionnaire was re-administered to the same group of teachers. The main reason why the test was to avoid the possibility of the respondents recalling former responses. The reliability of the questionnaire was tested using Cronbach's alpha coefficient making it very reliable for the study which gave the following values as shown below

Table 2: Alpha coefficient for the reliability test

S/N	Aspect	No of item	Cronbach alpha
1	Instructional materials	05	0.962
2	Professional development	05	0.939
3	Learning environment	05	0.982
4	Teachers effectiveness	05	0.967
5	Teachers effectiveness	05	0.940
Mean		25	0.958

Administration and return questionnaire

A questionnaire can be administered using various means; it can be done by telephone, through the internet, face to face, and through post. The method used to administer the questionnaire was done face to face during break in the head teacher's office as most teachers were obliged to be present. It was personally administered and the responses were collected on the spot to increase the chance of getting valid information. To ensure an effective administration of the questionnaire, the researcher contacted the head teachers of all the schools concerned like G.B.P.S Biyem –Assi Group IA, G.B.P.S Biyem-AssiIB, G.B.P.S Biyem-AssiIIA,etc who helped the researcher in the administration of the questionnaire, making known to them the purpose of the research to the teachers and pleaded with them to help fill the questionnaire to obtain her objectives. The researcher assured them that the work was strictly for academic purposes, and teachers were not to reveal their identities. The questions were read to permit teachers to easily complete the questionnaire. The questionnaire was distributed to the teachers by the researcher with the aid of the head teacher of the schools. At the end, the researcher collected the questionnaire and counted them.

Statistical techniques of data analysis

Descriptive statistics was used to analyze the data which was gathered from the teacher questionnaire. Data from the questionnaire was analyzed using the SPSS software version 25. and frequencies, percentages, mean scores, standard deviation, and global mean using the Likert scale which constituted the descriptive statistics. For generalization about the

population, an inferential statistics test such as the regression was used to test the hypothesis of the study.

Ethical Consideration

The research study was conducted based on professional ethics as well as principles of research. That is consent procedures, confidentiality towards participants, protection of their anonymity, and privacy of research participants were respected while filling the questionnaire for the research. The researcher also conveyed the purpose of the study to the proposed respondents as per standard research requirements. The researcher avoided deceptive practices, and respected indigenous cultures as well as disclosing sensitive information. The researcher never practiced any kind of practices that affected professional research undertakings

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULTS.

This chapter presented the research findings and analysis. The study investigated the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde municipality. The data was collected through questionnaire. Findings were presented to respond to four specific research questions of the study. The study sought to provide answers to four specific research questions: (i) What is the contribution of instructional materials to primary school teachers' effectiveness? (ii) What is the effect of professional development on primary school teachers' effectiveness? (iii) How does the learning environment influence primary school teachers' effectiveness? (iv) How does workload influence primary school teachers' effectiveness?

Demographic Characteristics of participants

Demographic characteristics of participants in this study included gender, educational qualification, type of school, and work experience.

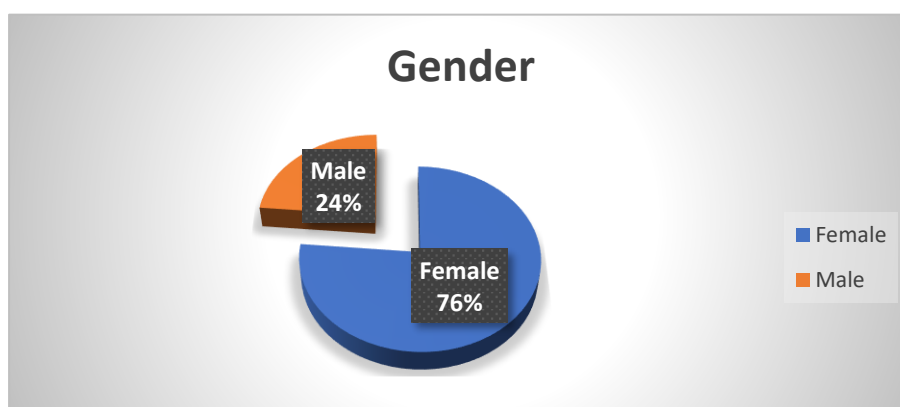
Gender of the respondent.

The gender of this study included male and female teachers of selected primary schools in Yaounde municipality

Table 3 Gender of respondent

Sex	Frequency	Percent
Female	155	76.4
Male	48	23.6
Total	203	100.0

Figure 1: Gender of respondents



Source: Field data (2022)

The pie chart on gender distribution shows females constituted a larger number of respondents (76%) as compared to (24%) of male respondents. This showed that majority of the respondents to the questionnaire were females.

Educational qualification

From the information collected respondents were classified into five categories based on their educational qualifications. They included Advance Level, High National Diploma, Bachelor Degree, Masters Degree, and CAPIEMP (Teacher Grade One Certificate).

Table 4 Educational Qualification

Educational Qualification	Frequency	Percent
Advance Level	24	11.8
High National Diploma	48	23.6
Bachelor Degree	44	21.7
Master Degree	13	6.4
CAPIEMP	74	36.5
Total	203	100.0

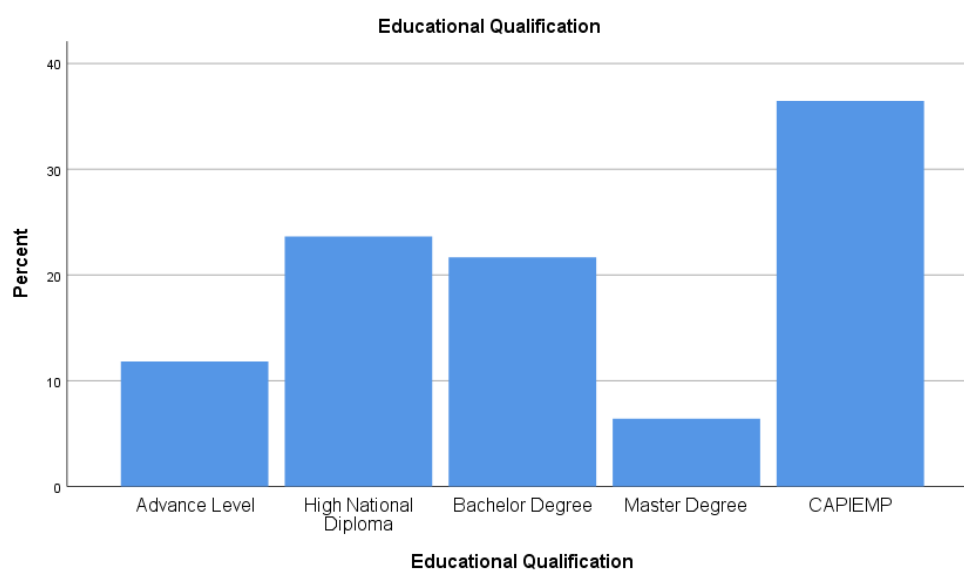


Figure 2 Educational qualification

Source: Field data (2022)

The majority of the respondents were CAPIEMP holders with 36.5%, they were followed by HND holders with 23.6%, then Bachelor Degree holders with 21.7%, Advance Level 11.8%,

and Master's degree 6.4%. From the information gathered it was evident majority of the respondents had the necessary qualification to teach in primary school.

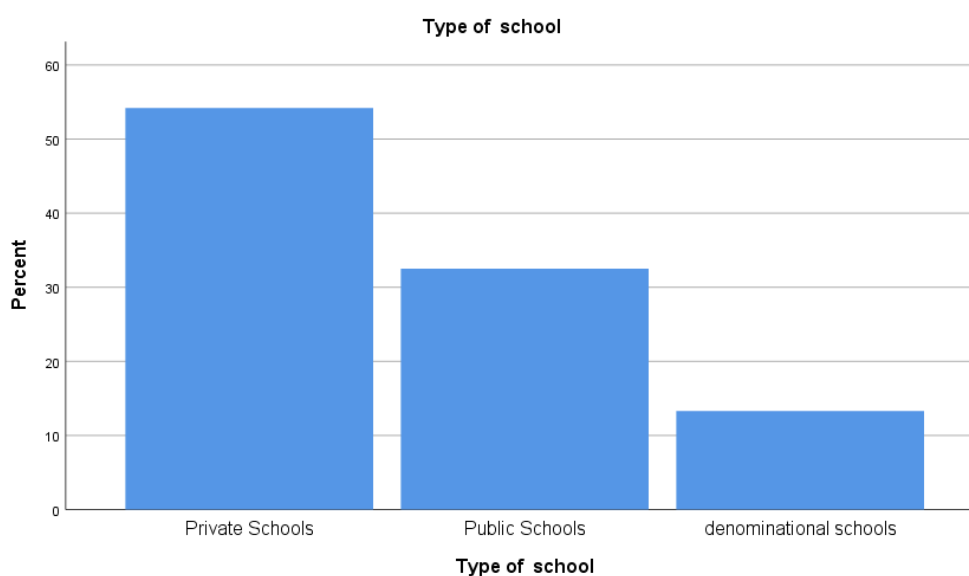
Type of schools

From the information collected respondents were classified into the category of schools thus; private, public, and denominational schools.

Table 5: Type of schools

Type of schools	Frequency	Percent
Private Schools	110	54.2
Public Schools	66	32.5
denominational schools	27	13.3
Total	203	100.0

Figure 3 Type of schools



Source: Field Data (2022)

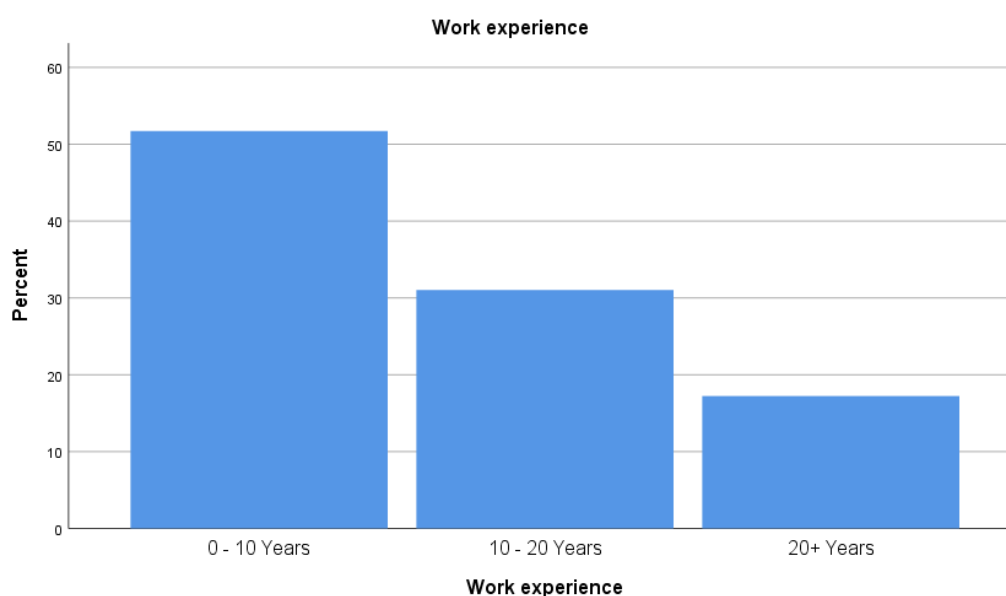
The highest proportion of respondents were from the private schools with 54.2%, followed by public schools with 32.5%, and lastly denominational schools with 13.3%

Work Experience

Respondents were grouped into three groups of experience. The first group (0-10) years of experience, the second group (10-20) years of experience, and the third (20+) years of experience.

Table 6 work Experience

Work Experience	Frequency	Percent
0 - 10 Years	105	51.7
10 - 20 Years	63	31.0
20+ Years	35	17.2
Total	203	100.0

Figure 4 work Experience

Source: Field data(2022)

The highest number of respondents with 51.7% with work experience ranging from (0-10) years, was closely followed by respondents with work experience ranging from (10-20) years with 31.0%, and the last respondents with work experience (20+) came up to 17.2%. The experience of respondents made the information collected reliable.

Presentation of findings

This section presented the findings according to the research questions. The study had four specific research questions to answer: (i) What is the contribution of instructional materials to primary school teachers' effectiveness? (ii) What is the effect of professional development on primary school teachers' effectiveness? (iii) How does the learning environment influence primary school teachers' effectiveness? (iv) How does workload influence primary school teachers' effectiveness? For each case, the frequencies, percentages, weighted mean, and

standard deviation were used to present and analyzed data and appropriately reported findings following the questions.

Specific Question One

What is the contribution of instructional materials to primary school teachers' effectiveness?

The contribution of instructional materials to primary school teachers' effectiveness was a five-item statement. The responses were presented on a Likert scale of 4-1 (Strongly Agree, Agree, Strongly Disagree, Disagree). The respondents were asked to rate their level of agreement or disagreement. The results were as shown in table 5

Table 7 The contribution of instructional materials to primary school teachers' effectiveness?

Statement	Strongly Agree	Agree	Strongly disagree	Disagree	Mean	Standard Deviation
	Frequency and Percentage; N=108					
	f(%)	f(%)	f(%)	f(%)		
1 Teaching with instructional materials makes teaching more interesting	107(52.7)	36(17.7)	32(15.8)	28(13.8)	3.09	1.111
2 . The school provides the necessary materials for the teaching of all the subjects.	87(42.9)	48(23.6)	26(12.8)	42(20.7)	2.89	1.174
3 I feel confident telling my colleagues my difficulties.	80(39.4)	74(36.5)	10(4.9)	39(19.2)	2.96	1.103
4 Pupils understand lessons better when taught with instructional materials.	141(69.5)	44(21.7)	2(1.0)	16(7.9)	3.53	.863
5 Teaching using instructional materials increases learner's outcome	127(62.6)	72(35.5)	0	4(2.0)	3.59	.603
Overall total					3.21	0.970

Source: Field data,2022

As indicated in Table 5 most of the respondents fell in the category of those who strongly agreed and agreed on the contribution of instructional materials to primary school teachers' effectiveness.

Teaching with instructional materials makes teaching more interesting (52.7) strongly agreed with the statement. The school provides necessary materials for the teaching of all the subjects (42.9%) strongly agreed with the statement. I feel confident telling my colleagues about my difficulties (39.4%) and strongly agreed with the statement. Pupils understand lessons better when taught with instructional materials (62.6%) strongly agreed with the statement. Teaching using instructional materials increase learners' outcome (62.6%) and strongly agreed with the statement.

On the other hand, some respondents strongly disagree and disagreed with the contribution of instructional materials to primary school teachers' effectiveness. Teaching with instructional materials makes teaching more interesting (15.8%); The school provides necessary materials for the teaching of all the subjects (20.7%); I feel confident telling my colleagues about my difficulties (19.2%); Pupils understand lessons better when taught with instructional materials (7.9%); teaching using instructional materials increase learners' outcome (2.0%).

As a result, the overall average mean of responses was 3.21 on the contribution of instructional material materials to primary school teachers' effectiveness. The overall average mean fell in the range of high mean. This indicated that many of the respondents strongly agreed on the contribution of instructional materials to primary school teachers' effectiveness.

Specific Question Two

What is the effect of professional development on primary school teachers' effectiveness?

The effect of professional development on primary school teachers' effectiveness was a five-item statement. The responses were presented on a Likert scale of 4-1 (Strongly Agree, Agree, Strongly Disagree, Disagree). The respondents were asked to rate their level of agreement or disagreement. The results are shown in Table 8

Table 8 the effect of professional development on primary school teachers' effectiveness

Statement	Strongly Agree	Agree	Strongly disagree	Disagree	Mean	Standard Deviation
	Frequency and Percentage; N=108					
	f(%)	f(%)	f(%)	f(%)		
6 Adequate pedagogic seminars often take place in my school	80(39.4)	80(40.4)	18(8.9)	23(11.3)	3.08	.967
7 Sample model lessons are given on different topics	58(28.6)	88(43.3)	6(3.0)	51(25.1)	2.75	1.125
8 I am provided with guidance on teaching the new schools subjects	90(44.3)	80(39.4)	6(3.0)	27(13.3)	3.15	.994
9 I was trained to teach these subjects in school	84(41.4)	86(42.4)	6(3.0)	27(13.3)	3.12	.983
10 I still face difficulties in delivering lessons on these subjects	32(15.8)	28(13.8)	36(17.7)	107(52.7)	1.92	1.139
Overall total					2.80	1.0416

Source: Field data (2022)

As indicated in table 6 most of the respondents fell in the category of those who strongly agreed on the effects of professional development on primary school teachers' effectiveness. Adequate pedagogic seminars often take place in my school (40.4%). Sample model lessons are given on different topics (43.3%). I am provided with guidance on teaching the new subjects (44.3%). I was trained to teach these subjects in school (42.4%). I still face difficulties in delivering lessons on these subjects (15.8%).

On the other hand, some respondents strongly disagree and disagreed with the effects of professional development on primary school teachers' effectiveness. Adequate pedagogic seminars often take place in my school (11.3%); Sample model lessons are given on different topics (25.1%); I am provided with guidance on teaching the new school subjects (13.3%); I was trained to teach these subjects in school (13.3%); I still face difficulties in delivering lessons on these subjects (52.7%).

As a result, the overall average mean of responses was 2.80 on the effect of professional development on primary school teachers' effectiveness. The overall average mean fell in the

range of high mean. This indicated that many of the respondents strongly agreed on the effects of professional development on primary school teachers' effectiveness.

Specific question three what is the contribution of the learning environment on primary school teachers' effectiveness?

The contribution of the learning environment to primary school teachers' effectiveness was a five-item statement. The responses were presented on a Likert scale of 4-1 (Strongly Agree, Agree, Strongly Disagree, Disagree). The respondents were asked to rate their level of agreement or disagreement. The results were shown in Table 9

Table 9 the influence of the learning environment on primary school teachers' effectiveness.

Statement	Strongly Agree	Agree	Strongly disagree	Disagree	Mean	Standard Deviation
	Frequency and Percentage; N=108					
	f(%)	f(%)	f(%)	f(%)		
11 The learning environments have changed with innovations	64(31.5)	98(48.3)	8(3.9)	33(16.3)	2.95	1.004
12 The classrooms have the necessary learning equipment's	96(47.3)	46(22.3)	12(5.9)	49(24.1)	2.93	1.225
13 The sitting position of the learners enables them to work together	92(45.3)	74(36.5)	10(4.9)	27(13.3)	3.14	1.010
14 The classrooms are spacious enough for learners to manipulate with learning materials	96(47.3)	54(26.6)	14(6.9)	39(19.2)	3.02	1.147
15 The classrooms are over crowded	46(22.7)	70(34.5)	42(20.7)	45(22.2)	2.58	1.071
Overall total					2.92	1.091

Source: Field data (2022)

As indicated in table 7, most of the respondents fell in the category of those who strongly agreed on the contribution of the learning environment to primary school teachers' effectiveness. The learning environment has changed with innovations (48.3%). The classrooms have the necessary learning equipment (47.3%). The sitting position of the

learners enable them to work together (45.3%).The classrooms are spacious enough for learners to manipulate learning materials (47.3%). The classrooms are overcrowded (34.5%).

On the other hand, some respondents strongly disagreed and disagreed on the contribution of the learning environment to primary school teachers' effectiveness. The learning environment has changed with innovations (16.3%); The classrooms have the necessary learning equipment (24.1%); The sitting position of the learners enable them to work together (13.3%). The classrooms are spacious enough for learners to manipulate with learning materials (19.2%); The classrooms are overcrowded(22.2%).

As a result, the overall average mean of responses was 2.92 on the contribution of the learning environment to primary school teachers' effectiveness. The overall average mean fell in the range of high mean. This indicated that many of the respondents strongly agreed on the contribution of the learning environment to primary school teachers' effectiveness.

Specific Question Four

What is the influence of workload on primary school teachers' effectiveness?

Workload influences primary school teachers' effectiveness was a five-item statement. The responses were well presented on a Likert scale of 4-1(strongly agree, Agree, Strongly Disagree, Disagree).The respondents were asked to rate their level of agreement or disagreement. The results were shown in Table 10

Table 10 workload influences primary school teachers' effectiveness

Statement	Strongly Agree	Agree	Strongly disagree	Disagree	Mean	Standard Deviation
	f(%)	f(%)	f(%)	f(%)		
16 The time allocated for each subject is enough.	66(32.5)	60(29.6)	18(8.9)	59(29.1)	2.66	1.210
17 The work load for each subject after innovation remains the same.	42(20.7)	70(34.5)	32(15.8)	59(29.1)	2.47	1.118
18 I can cover all that is supposed to be taught.	88(43.3)	44(21.7)	20(9.9)	51(25.1)	2.83	1.231
19 I have enough time to do remediation where learners are in need.	58(27.6)	94(46.3)	18(8.9)	35(17.2)	2.84	1.017
20 At the end the school year learners are able to exhibit	138(68.0)	40(19.7)	6(3.0)	19(9.4)	3.46	.935

competences in different aspects.

Overall total	2.85	1.102
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Source: Field data (2022)

As indicated in table 8, most of the respondents fell in the category of those who strongly agreed on workload influences primary school teachers' effectiveness. The time allocated for each subject is enough (32.5%). The workload for each subject after innovation remains the same (34.5%). I can cover all that is supposed to be taught (43.3%). I have enough time to do remediation where learners are in need (46.3%). At the end of the school year, learners can exhibit competencies in different aspects (68%).

On the other hand, some respondents strongly disagree and disagreed on workload influences primary school teachers' effectiveness. The time allocated for each subject is enough (29.1%); The workload for each subject after innovation remains the same (29.1%); I can cover all that is supposed to be taught (25.1%); I have enough time to do remediation where learners are in need (17.2%); At the end of the school year, learners can exhibit competences in different aspects (9.4%). As a result, the overall average mean of responses was 2.148 on workload influence on primary school teachers' effectiveness. The overall average mean fell in the range of high mean. This indicated that many of the respondents strongly agreed on the workload influences primary school teachers' effectiveness.

Dependent Variable

Teachers' Effectiveness

Teachers' effectiveness was a five-item statement with the responses presented on a Likert scale of 4-1 (Strongly Agree, Agree, Strongly Disagree, Disagree). The respondents were asked to rate their level of agreement or disagreement. The results were presented in table 11

Table 11 Teachers' effectiveness.

Strongly Agree	Agree	Strongly disagree	Disagree	Mean	Standard Deviatio
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Statement	Frequency and Percentage; N=108				Mean	SD
	f(%)	f(%)	f(%)	f(%)		
21 I acquire enough professional development in my school to meet up with the innovations in the curriculum.	100(49.3)	82(40.4)	2(1.0)	19(9.4)	3.30	.891
22 I always carry out proper research when preparing my lessons.	98(48.3)	92(45.3)	0	13(6.4)	3.35	.785
23 I am monitored and guided to make sure I cover the workload	104(51.2)	88(43.3)	0	11(5.4)	3.40	.754
24 I am provided with instructional materials to meet up with the challenges of innovation	52(25.6)	78(38.4)	44(21.7)	29(14.3)	2.75	.994
25 Most innovations are boring.	0	20(9.9)	66(32.5)	117(57.6)	1.52	..670
Overall total					2.86	0.818

Source: Field data (20 22)

As indicated in table 9, most of the respondents fell in the category of those who strongly agreed that curriculum innovation greatly impacts teachers' effectiveness in primary school. I acquire enough professional development in my school to meet up with the innovations in the curriculum (48.3%). I always carry out proper research when preparing my lessons (48.3%). I am monitored and guided to make sure I cover the workload (51.2%). I am provided with instructional materials to meet up with the challenges of innovation (38.4%). Most innovations are boring (9.9%).

On the other hand, some respondents strongly disagreed and disagreed with the fact that curriculum innovation has an impact on teachers' effectiveness in primary school. I acquire enough professional development in my school to meet up with the innovation in the curriculum (9.4%); I always carry out proper research when preparing my lessons (6.4%); I am monitored and guided to make sure I cover the workload (5.4%); I am provided with instructional materials to meet up with the challenges of innovation (21.7%); Most innovations are boring (57.6%). As a result, the overall average mean of responses was 1.79 on the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde Municipality. The overall average mean fell in the range of high mean. This indicated that many of the respondents strongly agreed that, curriculum innovation has an impact on teachers' effectiveness in the primary school.

Correlation analysis

To test the previously established hypotheses with the help of simple linear regression analyses, Saunders et al. (2016) state that the collected data has to meet the precondition that is concerned with the linearity of the relationship between the separate IVs and the DV. relationships between the different IVs, Instructional material ,Professional development, Learning environment , Workload and DVs Teacher effectiveness.

Table 12 Correlation Table of variables

	Instructional Material	Professional development	Learning environment	Workload	Teacher effectiveness
Instructional Material					
Professional development	.944**				
Learning environment	.977**	.974**			
Workload	.987**	.958**	.977**		
Teacher effectiveness	.927**	.946**	.924**	.922**	
Mean	3.21	2.80	2.92	2.85	2.86
Standard Deviation	.91331	.96091	1.047	1.041	.74340
N	203	203	203	203	203

** . Correlation is significant at the 0.01 level (2-tailed).

Test of Hypotheses

H01:Instructional materials have no statistical significant influence on primary school teachers' effectiveness.

Table 12 Model summary on the effect of instructional materials on teacher effectiveness

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.927 ^a	.859	.859	.27956

a. Predictors: (Constant), Instructional materials

Here, regression was also carried out to ascertain the extent to which Instructional materials scores predict teachers' effectiveness. There was a strong positive linear relationship between the instructional materials and primary school teachers' effectiveness scores, which was confirmed with a Pearson's correlation coefficient of $r = .927$. The regression model predicted 85.9 % of the variance. ($p = .000$) which implies that the test is highly significant. Thus we can assume that there is a statistically significant instructional materials scores predict teachers' effectiveness.

Table 13 ANOVA the effect of Instructional material on primary school teachers' effectiveness

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95.927	1	95.927	1227.405	.000 ^b
	Residual	15.709	201	.078		
	Total	111.635	202			

a. Dependent Variable: Teacher effectiveness

b. Predictors: (Constant), Instructional materials

With an F value = 1227.405, $p = .000$, the test is highly significant. Thus we can assume that there is a statistically significant on instructional materials scores predict teachers' effectiveness.

Table 14 Coefficients on the effect of instructional material on teacher effectiveness

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	.443	.072		6.168	.000
	Instructional materials	.755	.022	.927	35.034	.000

a. Dependent Variable: Teacher effectiveness

The regression results showed a significant relationship between instructional materials on teacher effectiveness scores ($t = 35.034$, $p = 0.000$).

H02: Professional development have no statistical significant influence of on primary school teachers' effectiveness

Table 15 Model summary on the effect of professional development on teacher effectiveness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.946 ^a	.894	.894	.24236

a. Predictors: (Constant), Professional development

Here, regression was also carried out to ascertain the extent to which professional development scores predict teachers' effectiveness. There was a strong positive linear relationship between the professional development and primary school teachers' effectiveness scores, which was confirmed with a Pearson's correlation coefficient of $r = .944$. The regression model predicted 89.4 % of the variance. ($p = .000$) which implies that the

test is highly significant. Thus we can assume that there is a statistically significant, professional development scores predict teachers' effectiveness.

Table 16 ANOVA the effect of professional development on primary school teachers' effectiveness

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99.829	1	99.829	1699.613	.000 ^b
	Residual	11.806	201	.059		
	Total	111.635	202			

a. Dependent Variable: Teacher effectiveness

b. Predictors: (Constant), Professional development

With an F value = 1699.613, $p = .000$, the test is highly significant. Thus we can assume that there is a statistically significant on professional development scores predict teachers' effectiveness.

Table 17 Coefficients on the effect of professional development on teacher effectiveness

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	.814	.053		15.473	.000
	Professional development	.732	.018	.946	41.226	.000

a. Dependent Variable: Teacher effectiveness

The regression results showed a significant relationship between professional development on teacher effectiveness scores ($t = 41.226$, $p = 0.000$).

H03: Learning environment have no statistically significant influence on teachers' effectiveness

Table 18 Model summary on the effect of learning environment on teacher effectiveness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924 ^a	.853	.852	.28567

a. Predictors: (Constant), Learning environment

Here, regression was also carried out to ascertain the extent to which learning environment scores predict teachers' effectiveness. There was a strong positive linear relationship between the professional development and primary school teachers' effectiveness scores, which was confirmed with a Pearson's correlation coefficient of $r = .977$. The regression model predicted 85.3 % of the variance. ($p = .000$) which implies that the test is highly significant. Thus we can assume that there is a statistically significant, learning environment scores predict teachers' effectiveness

Table 19 ANOVA the effect of learning environment on primary school teachers' effectiveness

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95.233	1	95.233	1166.990	.000 ^b
	Residual	16.403	201	.082		
	Total	111.635	202			

a. Dependent Variable: Teacher effectiveness

b. Predictors: (Constant), Learning environment

With an F value = 1166.990, $p = .000$, the test is highly significant. Thus we can assume that there is a statistically significant on learning environment scores predict teachers' effectiveness.

Table 20 Coefficients on the effect of professional development on teacher effectiveness

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.951	.060		15.968	.000
	Learning environment	.655	.019	.924	34.161	.000

a. Dependent Variable: Teacher effectiveness

The regression results showed a significant relationship between learning environment on teacher effectiveness scores ($t = 34.161, p = 0.000$).

H04: Workload have no statistical significant influence on primary school teachers' effectiveness

Table 21 Model summary on the effect of workload on teacher effectiveness

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.922 ^a	.851	.850	.28792

a. Predictors: (Constant), Work load

Here, regression was also carried out to ascertain the extent to which learning environment scores predict teachers' effectiveness. There was a strong positive linear relationship between the workload and primary school teachers' effectiveness scores, which was confirmed with a Pearson's correlation coefficient of $r = .978$. The regression model predicted 85.1 % of the variance. ($p = .000$) which implies that the test is highly significant. Thus we can assume that there is a statistically significant, workload scores predict teachers' effectiveness

Table 22 ANOVA the effect of workload on primary school teachers' effectiveness

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.973	1	94.973	1145.691	.000 ^b
	Residual	16.662	201	.083		
	Total	111.635	202			

a. Dependent Variable: Teacher effectiveness

b. Predictors: (Constant), Work load

With an F value = 1145.691, $p = .000$, the test is highly significant. Thus we can assume that there is a statistically significant on workload scores predict teachers' effectiveness.

Table 23 Coefficients on the effect of workload on teacher effectiveness

The regression results showed a significant relationship between workload on teacher effectiveness scores ($t = 33.848$, $p = 0.000$).

Coefficients^a

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	.989	.059		16.751	.000
	Work load	.658	.019	.922	33.848	.000

a. Dependent Variable: Teacher effectiveness

Summary Table: Summary Results of Research.

	Questions	Mean	Standard deviation	Remark
1	What is the contribution of instructional materials to primary school teachers' effectiveness?	3.21	.9708	Strongly agree
2	What is the effect of professional development on primary school teachers' effectiveness?	2.80	1.0416	Strongly agree
3	How does the learning environment influence primary school teachers' effectiveness?	2.94	1.0974	Strongly agree
4	How does workload influence primary school teachers' effectiveness?	2.85	1.1052	Strongly agree

CHAPTER FIVE

RECOMMENDATION, SUGGESTION, LIMITATIONS, AND CONCLUSION

The main objective of this study was to examine the impact of curriculum innovation on teachers' effectiveness in selected primary schools in Yaounde Municipality. Four research hypotheses were formulated alongside research questions to guide the investigations. Questionnaire was used as the main research instruments. The data collected was analyzed using the simple linear regression. From the interpretation and discussion of the findings, the researcher outlined some recommendations as well as suggestions for further research on the studied phenomenon. This chapter equally enumerated the difficulties encountered in the process of investigation.

Discussion of findings

From the different research hypotheses involving the independent variables, the results obtained were as follows:

Ha1: Instructional materials has a statistical significant influence on primary school teachers' effectiveness.

The regression results showed a significant relationship between instructional materials on teacher effectiveness scores ($t = 35.034, p = 0.000$). This permits us to confirm H_{a1} that there is a linearity between instructional materials and teacher effectiveness scores while rejecting H_{01} .

Our first research hypotheses looked at the relationship of instructional materials on teachers' effectiveness. After collection and analysis of data, the results showed that instructional materials are closely related to teachers' effectiveness. Instructional materials consist of visual and audio-visual which the teacher uses during lesson presentations to increase the outcome of the learners and to better their understanding. The use of instructional materials involves all teachers of different experiences working together for the well-being of their learners.

The stimulus-response theory of Thorndike states that when a modifiable connection between stimulus –responses has been made, it is strengthened if it resulted in satisfaction. This implies when teachers used instructional materials they should be good quality materials and the result showed that it should affect the learning environment. Thus the simple linear

regression analysis, shows that for teachers to be effective in the classroom instructional material is very important. That is the predictor variable (instructional material) relatively predicts teachers' effectiveness.

Ha2: Professional development has a statistically significant influence of on primary school teachers' effectiveness

The regression results showed a significant relationship between professional development on teacher effectiveness scores ($t = 41.226$, $p = 0.000$). This permits us to confirm H_{a1} that there is a linearity between professional development and teacher effectiveness while rejecting H_{01} .

The second hypothesis looks at the relationship between professional development and teachers' effectiveness. With the collection and analysis of data, the result showed that professional development is closely linked to teachers' effectiveness. It means that the direction of the relationship is positive revealing that professional development is a predictor of teachers' effectiveness. Professional development includes workshops, seminars, conferences, animations, and so on all in the development of the skills of the teacher.

The adult learning theory of Malcolm Knowles explained best how adults learn. Professional development is very important for teachers' effectiveness as it transforms teachers into better and more apt educators by helping them to meet up with the changes of today's students. When new teaching strategies are learned through professional development, the teachers go back to their classrooms with changes to suit the needs of their students. All the teachers should be involved in professional development to improve the learning outcome of their learners.

Therefore, the simple linear regression analysis, shows that for teachers to be effective in the classroom professional development is necessary. The predictor variable (professional development) relatively predicts teachers' effectiveness.

Ha3: Learning environment has a statistically significant influence on teachers' effectiveness

The regression results showed a significant relationship between learning environment on teacher effectiveness scores ($t = 34.161$, $p = 0.000$). This permits us to confirm H_{a1} that there is a linearity between Learning environment and teacher effectiveness while rejecting H_{01} .

This hypothesis looked at the relationship of the learning environment on teachers' effectiveness. After the collection and analysis of data, the result showed that the learning environment is closely related to teachers' effectiveness. It means that, the direction of the relationship is positive revealing that the learning environment is a predictor of teachers' effectiveness. The learning environment consists of the physical and psychological environment as they both have an impact on learners' outcome in classroom teaching. The teachers should always make sure they provide a conducive learning environment for their learners where they can interact and feel motivated to learn. If the learning environment is conducive it will increase their interaction in classroom activities. According to (<http://theschoolinrosevalley.org>) an engaged learning environment:

- Increases student interaction with peers and teachers.
- Provides students with frequent feedback.
- Requires increased time, effort, and investment for tasks.
- Offers students the opportunity to apply their learning in other situations.
- Allows experiencing diversity.

Therefore the simple linear regression analysis showed that, for teachers to be effective their learning environment has to be considered. The predictor variable (learning environment) relatively predicts teachers' effectiveness.

Ha4: Workload has a statistically significant influence on primary school teachers' effectiveness

The regression results showed a significant relationship between workload on teacher effectiveness scores ($t = 33.848$, $p = 0.000$). This permits us to confirm H_{a1} that there is a linearity between Workload and teacher effectiveness while rejecting H_{01} .

The last and fourth hypothesis looked at the relationship of workload on teachers' effectiveness. With the collection and analysis of data, the result showed that workload is closely related to teachers' effectiveness. It means that the direction of the relationship is positive revealing that workload is a predictor of teachers' effectiveness. The workload will involve all that the teacher is supposed to do in the classroom which involves teaching and the management of the learners. A teacher is supposed to manage the workload allocated with care to achieve effectiveness in the classroom. According to

(<http://.pointtopointeducation.com>,2018) gave some tips to manage workload to teachers thus:

- Write a list and prioritize.
- Know your limits.
- Get organized.
- Go home on time(and sometimes early).

If the workload is well managed the teacher will be able to cover the work allocated to him thereby achieving effectiveness. Thus the simple linear regression analysis,showed that for teachers to be effective in the classroom, the workload is very important. The predictor variable (workload) relatively predicts teachers' effectiveness.

From the above results and verification of the four hypotheses, one can summarily say there is a significant linearity between the impact of curriculum innovation and teachers' effectiveness in selected primary schools in Yaounde Municipality.

Recommendations to the government/MINEDUB

The research made the following recommendations to the government through the body in charge of education at the basic level MINEDUB thus:

- The government should always carry out need analysis in the field before embarking on any innovation in the field of education, it will act as a guide for them to know the type of innovation to embark on at what time.
- The government should always involve teachers who are in the field to be part of the team when carrying out the plans for innovation they will guide the lapses that are existing in the field of education.
- Available resources should be provided to schools to meet up with the challenges teachers faced in the field.
- The curriculum of the teacher training colleges should be reviewed so that the teachers who are going to the field should not face challenges like those in the field who are now learning through in-service training to meet up with changes.

Recommendation to pedagogic inspectors of education

- The inspectors should be part of the team during the program for innovation. They should sensitize the public and the education community on the importance of innovation programs. The inspectors are expected to have programs of formal workshops in which basic information about the training on innovation is presented. The workshop should include many opportunities for experimental learning, viewing and discussing videos of various innovative scenarios, and rehearsing ways to provide feedback to teachers. Formal workshops need to be followed by ongoing support as mentors in the training session begin their work. A mentor might serve as a mediator in addressing teachers' effectiveness.

Recommendation to school administrators and teachers.

- The headteacher as a school administrator has to identify teachers who are more knowledgeable than others and propose them to the delegation as potential mentors or coaches to help others based on the subject matter. The headteacher must provide the support needed by the coaches and encourage the teachers to collaborate with the coaches.
- Teachers should understand that curriculum innovation is for them to improve their teaching to yield better learning outcomes they should be fully involved and treat it with seriousness.

Recommendation to students

- The students should not look low on their teachers in the presents of the coaches and inspectors. They should consider both the coach and inspectors as their teachers.

Recommendation to the society

- Society should learn to accommodate in-service teachers and give them the support they need and their rightful place in society.

Suggestions for further research

This research might not have exhausted everything in the topic or field of study, the results of this study which aimed to examine the impact of curriculum innovation on teachers' effectiveness may not have recorded all the opinions of the different teachers as far as the study is a concern. Therefore, the researcher suggests the following:

- This study was carried out in Yaounde Municipality. The same study can be carried out in different parts of the country or nationwide to ensure the generalization of the result. The study can also be carried out by teachers of secondary education (MINESEC) and large sample size can be used. It can also be undertaken with the use of a different statistical method to see the correlation between the methods.
- The institutions should always make available the necessary instructional materials for teachers to use in their teaching. All the teachers should make good use of instructional materials to boost their teaching and improve learning outcomes.
- The administration in charge of professional development should intensify their effort. More seminars and workshops should be organized to meet up with the demands of the teacher on the aspects of innovation. Teachers should treat seminars and workshops with seriousness to improve their classroom effectiveness.
- The Ministry of Basic Education should make it possible to provide a conducive learning environment, especially in public schools. The structures should be changed to suit the innovation so that teachers can work well as required by the innovative curriculum.
- The timetable should be readjusted and more time be allocated for lessons as it will enable the teachers to have enough time to cover their work and do remediation with their learners.

Limitation of the study

- **Lack of relevant textbooks**

There was a lack of relevant textbooks in the school library, the few available ones were in the French language. This made it difficult for the researcher to carry out her work smoothly. However, with the use of the internet the researcher was able to make use of journals, books, dissertations, and articles related to the study.

- **The reluctance of school administrators to provide useful information**

In some schools, it was not easy to get all the teachers to fill out the questionnaire. This made the researcher visit these schools several times to make sure that the questionnaire was filled. The administrators of some schools were reluctant to provide full information concerning the problem under study.

- **Limited Time**

The researcher had limited time as she doubled as a classroom teacher and student at the same time. She had limited time to work on her research.

- **Financial difficulties**

The movement in town to and from the schools was not easy coupled with the high inflation rate in the country. The printing of the questionnaire and the final copy of the work was not easy for the researcher to complete her work on time.

Conclusion

This chapter was focused on the researcher's findings. The four-research hypothesis were confirmed in the preceding chapter, based on the result of our statistical analysis, and a discussion of the results concerning the research hypothesis was equally provided in this chapter. Based on the confirmation of the research hypothesis, it was therefore concluded that there is a significant relationship on the impact of curriculum innovation on teachers' effectiveness. The chapter equally provides some recommendations to the government, ministry of basic education. The researcher provided some suggestions for future studies on the problem, and finally, the researcher stated some limitations encountered during the study.

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ANNEX: Kceje and Morgan Table

Required Sample Size [†]								
Population Size	Confidence = 95%				Confidence = 99%			
	Margin of Error				Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

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Questionnaire for Teachers

Dear respondent, I am a student in the Faculty of Education, University of Yaounde I. I am currently carrying out research on the topic: The Impact of Curriculum Innovation on Teachers' Effectiveness in selected primary schools in Yaounde municipality. I kindly request your participation in this study by objectively providing answers to the following questions. I assure you that, the information you provide in this questionnaire will be kept confidential and used only for academic purposes.

Instructions

For each of the following statement below, place a bold tick on the scale that applies to you using the five (4) scale below. There is no right or wrong answer. We are looking for your overall impression on each statement.

(1) SA= Strongly Agree (2) A= Agree (3) SD= Strongly Disagree (4) D= Disagree

(2) Demographic Variable

- 1) Name
- 2) Age
- 3) Years of experience: (1) 1-10 (2) 10-20 (3) 20+
- 4) Highest academic qualification: (1) A LEVEL, (2) HND (3) CAPIEMP (4) FIRST DEGREE (5) MASTERS
- 5) Type of school (1) private (2) public (3) denominational
- 6) Gender: (1) male (2) female

II Instructional Materials

		SA	A	SD	D
7	Teaching with instructional materials makes teaching more interesting.				
8	The school provides necessary materials for the teaching of all the subjects.				
9	I feel confident telling my colleagues my difficulties.				
10	Pupils understand lessons better when taught with instructional materials.				
11	Teaching using instructional materials increases learner's outcome				

III Professional development

		SA	A	SD	D
12	Adequate pedagogic seminars often take place in my				

	school				
13	Sample model lessons are given on different topics				
14	I am provided with guidance on teaching the new schools subjects				
15	I was trained to teach these subjects in school				
16	I still face difficulties in delivering lessons on these subjects				

IV Learning environment

		SA	A	SD	D
17	The learning environments have changed with innovations				
18	The classrooms have the necessary learning equipment's				
19	The sitting position of the learners enable them to work together				
20	The classrooms are spacious enough for learners to manipulate with learning materials				
21	The classrooms are over crowded				

V Work load

		SA	A	SD	D
22	The time allocated for each subject is enough.				
23	The work load for each subject after innovation remains the same.				
24	I am able to cover all what is supposed to be taught .				
25	I have enough time to do remediation where learners are in need.				
26	At the end the school year learners are able to exhibit competences in different aspects.				

VI Teachers effectiveness

		SA	A	SD	D
27	I acquire enough professional development in my school to meet up with the innovations in the curriculum.				
28	I always carry out proper research when preparing my lessons.				
29	I am monitored and guided to make sure I cover the work load .				
30	I am provided with instructional materials to meet up with the challenges of innovation.				
31	Most innovations are boring.				

