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OPTION: GUIDANCE COUNSELLING
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THE CHALLENGES OF EDUCATIONAL TECHNOLOGY AND CURRICULUM IMPLEMENTATION: CASE STUDY TEACHERS OF EBOLOWA MUNICIPALITY SOUTH REGION OF CAMEROON

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A POST GRADUATE DIPLOMA (DIPCO) IN GUIDANCE AND COUNSELLING

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TO

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ABBREVIATIONS

EDTECH; Educational Technology

CAI; Computer Assisted Instruction

SMT; Center for Applied Research in Educational technology

GBHS; Government Bilingual High school

ICT: INFORMATION, COMMUNICATION AND TECHNOLOGY

ABSTRACT

This research work titled The Challenges of Educational technology and curriculum implementation case study the teachers of Ebolowa municipality south region of Cameroon. This was inspired by the fact that many teachers find it challenging to use educational technological tools towards curriculum implementation. The research shows that teachers due to their lack of knowledge and skills which however affects the use of educational technology towards curriculum implementation. My main objective in this study is to examine the challenges that most teachers face when using educational technology in implementing the curriculum. I however came out with 3 research hypothesis in order to show if there is a relationship between the independent variable and the dependent variable. This work relies on a quantitative data collection through a questionnaire administered to 163 teachers. Thanks to the Pearson correlation test and SPSS version 23that the general hypothesis was approved.at the end of this work the main hypothesis shows that the need for educational technology should be implemented in schools to ease curriculum implementation. Based on the findings of the research some recommendations were made, teachers should increase the number of hours they go to the internet to search for information to update their teaching. The school administrators should make an inventory of the equipment on a regular basis.

Key word: educational technology and curriculum implementation.

RESUME

Ce travail de recherche instule Les défis de la technologie éducative et l'étude de cas de mise en œuvre des programmes d'études des enseignants de la municipalité d'Ebolowa dans la région sud du Cameroun. Cela a été inspiré par le fait que de nombreux enseignants trouvent difficile d'utiliser des outils technologiques éducatifs pour la mise en œuvre des programmes. La recherche montre que les enseignants en raison de leur manque de connaissances et de compétences, ce qui affecte cependant l'utilisation de la technologie éducative pour la mise en œuvre des programmes. Mon objectif principal pour cette étude est d'examiner les défis auxquels les enseignants sont confrontés lorsqu'ils utilisent la technologie éducative dans la mise en œuvre du programme. Je suis cependant sorti avec 3 hypothèses afin de montrer s'il existe une relation entre la variable indépendante et la variable dépendante. Ce travail repose sur une collecte de données quantitatives à travers un questionnaire adressé à 163 enseignants. Grâce au test de corrélation de Pearson et à la version SPSS 23, l'hypothèse. Générale a été approuvée. À la fin de ce travail, l'hypothèse principale montre que le besoin de technologie éducative devrait être implémenté dans les écoles pour faciliter la mise en œuvre des programmes. Sur la base des résultats de la recherche, certaines recommandations ont été formulées, les enseignants devraient augmenter le nombre d'heures passées sur internet pour rechercher des informations afin de mettre à jour leur enseignement. Les administrateurs de l'école devraient faire un inventaire de l'équipement sur une base régulière.

Mots clé: technologie éducative et mise en œuvre des programmes

INTRODUCTION

Educational technology is a fast-growing and increasingly developed subject in education during the past 50 years. The focus of the development of its theories and research is oriented into the methods and effectiveness of its implementation. Technology has seen a recent widespread integration into daily life, where access to vast amounts of information is now available with ease. Today's generation of students has grown up with technology all around them in an ever-increasing manner. To create an effective 21stcentury classroom that meets the needs of the students, a modern teacher must factor a student's motivation to learn and the effects technology has on inclusionary education. The world that we currently live in, technology is a very vital factor. With each passing day a new software or gadget is being brought into the market that serves to improve our lives in one way or the other. However, it is important to note that despite the fact that technology plays a vital role in making our lives easier, it is not the only role it has. Technology is increasingly growing its importance in the educational sector. The more technology advances, the more benefits it provides for students at every education level. The 21st century is featured with media technology.

Technology that is made use of in the classroom is very beneficial in helping students understand and absorb what they are being taught. For instance, since there are a number of students who are visual learners, projection screens connected to computers could be put in classrooms to let the students see their notes as opposed to simply sitting down and listening to the instructor teach.

Today, technology has been incorporated into a good number of curriculum even those that do not belong to the technology. Technology has greatly grown to the point that it is also available today to assist those kids who are yet to begin school. There are a number of educational systems which assist little children in getting ready for school and in a number of situations also give them a head start on their education.

The students of today are surrounded by technology, where access to vast collection of information is only a fingertip away. Many in the field of pedagogy state that technology integration is helpful. Meaningful and necessary for a school to function successfully. Educational Technology is playing a critical role in all fields of education. The development of computing and network technology, media technology, and particularly digitization, has been impacting our daily life all the time. As an electronic platform of distance education, "Blackboard" was developed in 1997, and has been widely utilized in web instruction and administration in elementary and middle /high schools, as well as in the colleges and universities. This paper is mainly to discuss the related theories and research of educational technology and the application of "Blackboard" in distance education. Situational

learning experiences. The core of this theory is discovery learning. Students learn by doing. John Dewey (1859-1952), a well-known educational psychologist, believed that practicing is a foundation of learning, and without learning practice students would get lost. He stressed that students construct their knowledge in practice, and instructional design should respect students' psychological development needs. He believed human's growth is a product of culture. The theory of multiple intelligences stresses everyone has his or her own unique intelligence. If curriculum, instructional contents, methods, and learning experiences. The core of this theory is discovery learning, Students learn by doing. Teachers adapting to this new life style must find methods of incorporating and utilizing these new form of technology in class, not only in a motivational level, but also on an instructional level too.

It is important for these classrooms to address the needs of the students. Technology supports the need for divergent learning approaches, helping to create a sense of community as well as meaningful experience. Appropriate use of technology can serve the regular education classroom by motivating students in all disciplines.

John Dewey (1859-1952), a well-known educational psychologist, believed that practicing is a foundation of learning, and without learning practice, students would get lost. He stressed that students construct their knowledge in practice, and instructional design should respect students' psychological development needs. Former Soviet psychologist Vygotsky proposed a social constructivist theory that emphasizes one's social and cultural backgrounds to determine one's behaviour. He believed human's growth is a product of culture. The influence of Constructivist theory on the development and implementation of educational technology is mainly reflected in the pioneering educational games, multimedia development and dynamic online interactions. The theory of multiple intelligences stresses everyone has his or her own unique intelligence. If curriculum, instructional contents, methods, and learning environment.

Technology is perhaps the strongest factor shaping the educational landscape today. Many schools are showing support or interest for increased levels of technology in the classroom by implementing programs designed to improve computer literacy for both teachers and students. Although teachers generally appreciate the benefits of educational technology in schools, they often find smooth and effective integration of new educational technologies.

In many countries, the use of technologies such as ICT in education has a clear impact on the development of educational curricula. However, it has never been examined whether teachers are using the ICT in accordance with proposed competencies. This indicates the existence of a gap between the proposed and implemented curriculum. There is no written evidence which can tell us exactly who has coined the phrase educational technology. Different educationists, scientists and

philosophers at different time intervals have put forwarded different definitions of Educational Technology. Educational technology is a multifaceted and integrated process involving people, procedure, ideas, devices, and organization, where technology from different fields of science is borrowed as per the need and requirement of education for implementing, evaluating, and managing solutions to those problems involved in all aspects of human learning. Educational technology, broadly speaking, has passed through five stages.

The first stage of educational technology is coupled with the use of aids like charts, maps, symbols, models, specimens and concrete materials. The term educational technology was used as synonyms to audio-visual aids.

The second stage of educational technology is associated with the 'electronic revolution' with the introduction and establishment of sophisticated hardware and software. Use of various audio-visual aids like projector, magic lanterns, tape-recorder, radio and television brought a revolutionary change in the educational scenario. Accordingly, educational technology concept was taken in terms of these sophisticated instruments and equipment's for effective presentation of instructional materials.

The third stage of educational technology is linked with the development of mass media which in turn led to 'communication revolution' for instructional purposes. Computer-assisted Instruction (CAI) used for education since the latest concept of educational technology is influenced by the concept of system engineering or system approach which focuses on language laboratories, teaching machines, programmed instruction, multimedia technologies and the use of the computer in instruction. According to it, educational technology is a systematic way of designing, carrying out and evaluating the total process of teaching and learning in terms of specific objectives based on research.

Educational technology, despite the uncertainty of the origin of the term, can be traced back to the time of the three-age system periodization of human prehistory; namely the Stone Age, the Bronze Age, and the Iron Age.

During the Stone Age, ignition of fire by rubbing stones, manufacture of various handmade weapon and utensils from stones and clothing practice were some of the simple technological developments of utmost importance. And teens. Students connect with experiences that are fun for them, and there's no reason why learning can't and shouldn't be fun. By researching pop culture trends and current events that catch the interest of students, teachers can incorporate them into lessons to make them more relatable and enjoyable. Additionally, teachers can use music, video, podcasts, and other media to build creative, interactive lessons. The ability to collaborate as part of a pair, group, or team is a valuable life skill for students to learn. Having students take notes together through Google Docs, complete Web quests, or build a classroom wiki page together are just some of the many ways technology can be used to help students learn and improve this skill. Introduce

gamified learning activities either through educational technology software or DIY lessons that require students to work with one another to do research and complete learning objectives to make learning an exciting, challenging, and supportive experience for everyone. The ability to use technology effectively is an increasingly vital skill, not only in K-12 education, but in the lives of students after graduation. College courses are more frequently being offered online or as a hybrid between classroom meetings and online lessons. Even courses taking place in traditional classrooms are starting to utilize more e-learning software (such as McGraw-Hill Connect and Pearson). Students who are able to navigate technology for e-learning and research purposes are better prepared for these college learning environments and careers that will require an understanding of Microsoft Office products, typing skills, the ability to communicate by email, managing digital calendars, and more from prospective candidates.

While technology is being utilized more and more frequently in K-12 education, many teachers are still struggling with integrating it in their classrooms and questioning if doing so is the right move for them. There are a number of factors we must each consider (cost, ease of use, ongoing support for proper understanding and usage) that will impact our decision of how, when, and if we should introduce new techno and teens. Students connect with experiences that are fun for them, and there's no reason why learning can't and shouldn't be fun. By researching pop culture trends and current events that catch the interest of students, teachers can incorporate them into lessons to make them more relatable and enjoyable. Additionally, teachers can use music, video, podcasts, and other media to build creative, interactive lessons.

Another common struggle of teachers attempting to integrate technology into their classrooms is a lack of knowledge and understanding of how to use technology, or discomfort with using it. Teachers who have these concerns also struggle with being provided with professional development resources to help them gain the knowledge and familiarity to introduce technology reliably and effectively. Teachers program comes with thorough training on how they can best use the program to support digital learning in their classrooms. Teachers can connect with members of different schools for ongoing support and assistance with using Teacher, as well as access a large selection of teacher resources containing ideas on how to integrate technology into the classroom and how to get the most from Teacher. Now, walk into a classroom. Are there computers and if so, how are they being used? Are they being used at all? Technology has revolutionized the way we think, work, and play. Technology, when integrated into the curriculum, revolutionizes the learning process. More and more studies show that technology integration in the curriculum improves students' learning processes and outcomes. Teachers who recognize computers as problem-solving tools change the way they teach. They move from a behavioural approach to a more constructivist approach. Technology and interactive multimedia are more conducive to project-based learning. Students are

engaged in their learning using these powerful tools, and can become creators and critics instead of just consumers. There is a growing body of evidence that technology integration positively affects student achievement and academic performance.

The Centre for Applied Research in Educational Technology (CARET) found that, when used in collaborative learning methods and leadership that is aimed at improving the school through technology planning, technology impacts achievement in content area learning, promotes higher-order thinking and problem solving skills, and prepares students for the workforce. Look at the research findings on student learning.

Furthermore, with regards to our society its very obvious to say that most schools and institutions are faced with the challenges of educational technology and curriculum Implementation looking back from our secondary schools and right to our universities, teachers are still using the chalk board whereas in other schools you can find very little technology which cannot be able to satisfy the entire population, hence resulting to the effects of technological knowledge by most students. All these had been a serious problem in our society as most of the students have very little knowledge at all.

Educators might sometimes be wondering why it is important to integrate technology into the classroom can serve as a means of teachers to support and enhance learning ,create opportunities to connect with students and encourage students to connect with information in new and exciting ways, with supportive guidance clearly defined objectives and attentive instruction on how to use technology effectively with new skills as digital learners, improve academic performance and increase personal and career success.

Teacher's attitudes and beliefs

It is a crucial factor in determining the role and effectiveness of technology in classrooms. Attitudes and beliefs about educational technology and pedagogy in general will ultimately influence how teachers implement technology. The most important question is how to best implement technology rather than whether technology will be used.

Confidence in skills and Knowledge may be given the availability of educational technology.

It is essential that teachers feel comfortable and confident about their ability to use them effectively. Many teachers grew up without access to technologies but students today are raised in an environment saturated by technology. These may however intimidate teachers who have little or no idea in technological experience. if teachers feel they do not have the necessary competences when using technology in the classrooms they may feel less in control of the class, useless technology and use other possibilities when designing their classes.

Lack of teacher's confidence.

Several researchers indicate that one that prevents teachers from using technology in education in their training is lack of confidence. Dawes [2001] sees this as a contextual factor which can act as a challenge. According to Becta, much of the research proposes that this is a major barrier to the uptake of use computers in classrooms claim that lack of skills are a constraining factor preventing teachers from using technology for teaching.

Resistance to Change and Negative Attitudes.

Much research into the barriers to the integration of technology into education found that teachers' attitudes and an inherent resistance to change were significant barriers. Watson, an Australian researcher argued that integrating the new technologies into educational settings requires change and different teachers will handle this change differently. According to him, considering different teachers' attitude to change is important because teachers believe influence what they did in classroom.

Lack of Teachers Competence.

Another challenge which is directly related to teachers' confidence, is teacher's competence in integrating technology into pedagogic practice. In Australia research, Newhouse found that many teachers lack the knowledge and skills to use computers and were not enthusiastic about the changes and integration of supplementary learning associated with bringing technology into their teaching practices.

Lack of Accessibility.

Several research study, indicates that lack of access to resources, including home access is another complex challenge that discourages teachers from integrating new technologies into education.

Lack of Technical Support.

Without both good technical support in the classroom, teachers cannot be expected to overcome the challenges preventing them from using technology. In Sicilias study, technical problems were found to be major barriers for teachers. These technical barriers included waiting for the websites to open and failing to connect to the internet.

Lack of Time.

Several recent studies indicates that many teachers have competence and confidence in using technology in the classrooms, but they still make little use of it because they did not have enough time.

Technology and learning processes.

Teachers may use technology throughout the curriculum or to complement a specific lesson. Variations in technology usage may reflect important differences in teacher's beliefs about

utility of technology in the process of education. These beliefs are greatly influenced by teachers' philosophy regarding how students learn. If the teacher regards student learning as primarily dependent on explicit teacher teachings, classroom activities will be driven by the traditional chalk and talk approach. More traditional educational beliefs have been related to less integration of technology based in classroom.

Thus, the use of technology will likely be limited to supplementary demonstrative activities within a particular educational unit. For teachers to achieve effective use of technology, they must experience shift from the teacher –centered classroom. In this situation educational technologies will likely have a mare central role because they permit active student learning activities in which the teacher serves as facilitator of the learning process.

Technology has seen a recent widespread integration into daily life, where access to vast amounts of information is now available with ease. Today's generation of students has grown up with technology all around them in an ever-increasing manner. To create an effective 21stcentury classroom that meets the needs of the students, a modern teacher must factor a student's motivation to learn and the effects technology has on inclusionary education. Technology has seen a recent widespread integration into daily life, where access to vast amounts of information is now available with ease. Today's generation of students has grown up with technology all around them in an ever-increasing manner. To create an effective 21stcentury classroom that meets the needs of the students, a modern teacher must factor a student's motivation to learn and the effects technology has on inclusionary education.

Curriculum implementation refers to how teachers deliver instruction and assessment through the use of specified resources provided in a curriculum. Curriculum designs generally provide instructional suggestions, scripts, lesson plans and assessment options related to a set of objectives. Such designs focus on consistency to help teachers successfully implement and maintain the curricular structure in order to meet various objectives. The term implementation simply as a process of putting an agreed plan, decision, proposal, idea or policy into effect. Hence curriculum implementation includes the provision of organized assistance to staff (teachers) in order to ensure that the newly developed curriculum and the most powerful instructional strategies are actually delivered at the classroom levels, Curriculum implementation process involves helping the learner acquire knowledge or experience. It is important to note that curriculum implementation cannot take place without the learner. The learner is therefore the central figure in the curriculum implementation process. Although there are various factors that also influence Curriculum Implementation like the resourcematerials and facilities, the teacher, the school environment, culture and ideology, Instructional supervision and assessment. Implementation takes place as the learner

acquires the intended experiences, knowledge, skills, ideas and attitudes that are aimed at enabling the same learner to function effectively in a society. Therefore putting the curriculum into operation requires an implementing agent. Stenhouse identifies the teacher as the agent in the curriculum implementation she argues that implementation is the manner in which the teacher selects and mixes the various aspects of knowledge contained in a curriculum document or syllabus into practice. Curriculum implementation therefore refers to how the planned or officially designed course of study is translated by the teacher into syllabuses, schemes of work and lessons to be delivered to students.

The implementation, as an essential parts of curriculum development, brings into existence the anticipated changes. The changes can occur in several ways. The two most obvious ways are slow changes which may occur for instance, when we incorporate minor adjustments in the course schedule, when we add some books to the library.

In many countries, especially in developing countries, teachers and students stuck with a curriculum that is highly outdated and of very little use in their future lives. In 21stcenturychallenges for education systems are manifold. New economies are driven by entrepreneurs, technology, and innovations. Emergence of the „knowledge society", rise of service sector, dependence on knowledge products, and highly educated personnel for economic growth are new phenomena with rapid advances in knowledge, technology and skills are becoming the key drivers for development. Knowledge economy is the generator of most wealth jobs and citizens will be needed with the capacity to identify problems, work in multi-disciplinary teams to identify solutions to manage complex and multidimensional tasks, to synthesize ideas and to communicate effectively. In knowledge society, crucial challenge for a nation's education is to align curriculum and learning to a whole new economic model based on an emerging global knowledge based workforce to accomplish this, it is imperative to transform children's learning processes in and out of school and engage them in acquiring 21st century Skills and knowledge. Education devoid of teaching and learning of thinking skills and contextualized learning environments is merely knowledge gathering and remembering. The advent of institutionalized teaching and learning, along with its critically significant summative examinations, has mainly weakened student's ability to acquire the core 21st Century skills of high-order thinking, communication, creativity and innovation, problem solving and confidence Education devoid of teaching and learning of thinking skills and contextualized learning environments, is merely knowledge gathering and remembering. The advent of institutionalized teaching and learning, along with its critically significant summative examinations, has mainly weakened student's ability to acquire the core 21st Century skills of high-order thinking, communist Research shows us that exemplary teacher education programs possess at least the following attributes: close integration of courses that create a coherent experience throughout the program, well-

defined standards of practices and performance, a core curriculum with emphasis on student learning, assessment and content pedagogy, use of problem-based teaching methods, active assessment using case studies and portfolios, drawing on the best practices of skilled veteran teachers in clinical experiences, and extending the amount of clinical exposure as early as possible in the programme.(Warner & Kaur 2017).

The preparation and development of teachers is not an end in itself but a step towards achieving the desired outcomes for students in our schools. From observations, the teaching strategies, methods and techniques have not evolved to the 21stcentury requirements that place the learners at the centre of the instructional process. It will be unfair to crucify the teachers but at the same time without exoneratingation, creativity and innovation, problem solving and confidence. However, it is the actual execution of the contents of curriculum data or plan the various agents of curriculum implementation are the supervisors, the head teacher, parents and teachers.

The teacher plays a vital role in the implementation of the curriculum since he is the one involved in the operationalization in the class. For the teacher to effectively implement the curriculum he must use appropriate educational technologies. Understanding the beliefs and concerns of teachers can provide insights into whether curriculum implementation will meet with success or failure. McNeill et al. (2016) and Rakes and Dunn (2015) have all substantiated this notion by addressing the impact of teachers' beliefs about given objectives in science curricula. McNeill et al. (2016) found that teachers' beliefs significantly influence their decisions for instruction. If beliefs play such a vital role, then taking time to learn about teachers' concerns, values, and perceptions should improve the implementation process by proactively addressing these areas .One of McNeill et AL's(2016) primary recommendations included preparing teachers through PD and collaborative opportunities; specifically, professional development should make sure that teachers fully understand the objectives and receive time to try the new curriculum with a class to support teacher learning. The need for teacher understanding and efficacy when implementing a new curriculum is apparent, especially considering the impact of these factors on student learning.

To ensure that curricular innovations are implemented with fidelity, instructional practices should be aligned to the specific learning goals provided in the curriculum (MacDonald, Barton. Curricular implementation encompasses different components, including the delivery of the curriculum through resources and instructional practices. To implement curricula with fidelity, instructional practices must align with the curriculum as well as support the individual needs of the students.

In addition, teacher preparedness for curriculum implementation, the findings from their study supported the need for teachers to know the curriculum well to strengthen instructional practices. Jess, Carse, and Keay (2016) found the need to prepare and train teachers to meet the objectives of a curriculum; specifically, the authors' focus was on the curriculum-development process and the role of the educator. Jess et al. (2016) argued that teachers need the capacity to design developmentally appropriate learning tasks that are aligned to curricular expectations. The focus of training and professional development requires an emphasis on teaching how best to interpret the curriculum so that students' needs will be aligned with appropriate instructional practices (Jess et al., 2016). One way to support this situation, as Jess et al. (2016) recommend, includes allowing teachers primary involvement in curriculum development and the process of alignment as it pertains to knowing student needs, and then instructing accordingly. The authors found that understanding how teachers perceive their roles in curriculum development and implementation provides insight into teachers' concerns about implementing a new curriculum. Teacher concerns play a part in the implementation of new curricula, because their concerns sometimes direct the choices teachers make when choosing to add or omit items from the curriculum.

Also, looking at the curriculum in our society both public and private schools continue to experience rapid and regular changes in their curricula. These changes may require teachers to possess the skills and knowledge to implement the curriculum with fidelity, adopting new curricula which require teachers to feel confident in the delivery and purpose of their materials they use in order to ensure accurate implementation.

CONTEXT OF STUDY

Educational technologies are all the devices and processes that enhance the teaching and learning process. It helps the teacher to teach more effectively and the learners to learn more effectively. The students of today are surrounded by technology, where access to information is only a fingertip away. It has been said that technology integration is helpful, meaningful and necessary for a school to function successfully. However, many teachers are reluctant to make the changes that incorporate technology into their instruction and many students have not experienced effective technology integration in classroom instruction.

Although technology is finally being integrated into education, its use for teaching and learning still remains a challenge. despite the fact that many schools today are privileged to have ready access to technology, trained teachers and a favourable policy environment, the use of technology in classroom is still low. The potential of technology to enhance learning cannot be overemphasized. By integrating technology into education, educators aim to engender pedagogical change and address fundamental issues that affect learners with special needs. Technology can therefore be seen as both a tool and a catalyst for change.

The use of educational technology and curriculum implementation will aid in increasing student engagement and motivation towards learning. It can however foster collaboration not only can teachers engage with students during lessons, but students can also communicate with each other. Technology helps change the student and teacher roles and relationships. Students take responsibility for their learning outcomes, while teachers become guides and facilitators. it has however helped and supplemented the teachers in their instructional programs through the structured lessons for remedial, enrichment or drilled purposes. The learners get training for self-instruction and teachers are relieved of the burden of routine repetition for exercise and revision purposes.

The training and use of educational technology contributes towards the professional growth of teachers. it equips them in the use of scientific methods for solving educational and administrative problems, it adds to the teaching competence of teachers and indicates a scientific outlook.

Educational technology has absolutely revolutionaries' the entire educational system. Until recently, the teachers used to be sole interpreter of knowledge to the learners and textbooks the sole

resource. Educational technology has affected the conventional roles and it has opened up the new areas of teacher functions such as management of resources and management of learning. Today, teachers have a range of media to assist and supplement the instructional work, technology is central to many sectors of society and its integration into the education process has great promise for student learning.

Curriculum implementation therefore refers to how the planned or officially designed course of study is translated by the teacher into syllabuses, schemes of work and lessons to be delivered to students. The term curriculum implementation had been defined in different ways by different scholars. Garba 2004 viewed curriculum implementation as the process of putting the curriculum into work for the achievement of the goals for which curriculum is designed. The first issue of implementation is poor involvement of teachers in matters relating to curriculum implementation either in planning or reform and that makes good performances impossible, no matter the teacher's methodological competence.

On the other hand, in any curriculum implementation process not all teachers will have the chance to be involved in these processes. Professional development of teachers is as an important factor contributing to the success of curriculum development. The teacher involved in curriculum organization has many roles and responsibilities. Teachers want to enjoy teaching and watching their students develop interests and skills in their area interest. The teacher may need to create lesson plans and syllabuses within the frame work of the given curriculum since the teacher's responsibilities are to implement the curriculum to meet student's needs.

JUSTIFICATION OF THE STUDY

The challenges of educational technology and curriculum implementation can be seen as the various ways people use learning tools and machines to make learning or living easier. The benefits of using technology in educational implementation is important to knowledge in that students are already interested and engaged in using technology which may however create amazing opportunities for them.

The purpose for this study is to present common challenges faced by educators in the classroom. Since computers are still not widely used in schools, the teaching process is dominated by the traditional methods.it is dominated by the frontal form of work where the teacher had enough interaction with students.

Improved teacher productivity and efficiency. Teachers can leverage technology to achieve new levels of productivity, implement useful digital tools to expand learning opportunities for students, and increase student support and engagement.it also enables teachers to improve their instruction methods and personalized learning. Schools can benefit from technology by reducing the

costs of physical instructional materials, enhancing and making the best use of teacher time. The effective use of digital learning tools in classrooms can increase student engagement, help teachers improve their lesson plans and facilitate personalized learning .it also helps students build essential 21st century skills. Virtual classrooms, video, augmented reality, and other technology tools cannot only make class more lively, they can also create more inclusive learning environments that foster collaboration and intuitiveness and enables teachers to collect data on students' performance. Still, it is important to note that technology is a tool used in education and not an ending itself. The promise of educational technology lies in what educators do with it and how it is best used to support their student's needs.

The effectiveness of using technology in education can be depicted in enriching the system of education in number of ways.it is regarded as a crucial tool that is used to improve student learning. First and foremost, stage is, the individuals need to develop their skills and abilities in terms of usage of technology. They need to possess adequate knowledge in terms of computers and mobile technology, as these are the technologies that are used by individuals in the field of education to a major extent.in the field of education, it is vital for the teachers to ensure that teaching learning methods are put into operation in an effectual manner. Before the advent of technologies, teachers primarily made use of textbooks and provided explanation of the concepts of the blackboard. But with the advent of technology, they are acquiring elaborate knowledge and providing understanding of the concepts amongst students, they are also able to show them pictures and images so they can acquire a better understanding. The usage of technology enables the teachers to implement teaching methods in an adequate manner. Whereas, students are able to implement ways of understanding and learning. Though the use of technologies, improvements are made in the competencies of students to carry out independent work. The students, primarily the ones, who are slow in understanding of the concept or those who possess learning disabilities tend to depend on others.

Improvement in Academic Learning.

When students get enrolled in academic institutions, then their major objective is to augment their learning and understanding of concepts. Hence when they learn how to make use of information technology, then their primary objective is to ensure that they make use of it in an effectual manner to achieve academic goals.

Increase in Creativity.

The students as well as teachers and other members of the educational sector are able to bring out an increase in creativity in their projects, assignments, tasks and other activities.

Increase in the Volume of completed task.

The implementation of tasks and assignments through the use of technology can be made manageable. Which causes reduction in monotony and stimulates the mind-set of the individuals towards learning.

Increases Motivation.

It has been found that when technology is made use of within the teaching learning methods. Through the use of technology, learning can take place in various forms. These are through reading articles, typing assignments, using excel to prepare spreadsheets.

Implementation of online courses.

In higher educational institutions, individuals are puising bachelors, masters or doctoral programs. Within the course of pursuance of these programs, they even required to take up online courses. Online education makes provision of the possibilities to make use to multi-media within the learning process. This includes making use of colour, sound, animation and video. The teachers in school are able to obtain access in terms of visibility of materials that are used to enhance teaching-learning methods which brings about improvements in the overall system of education.

Distance learning.

As the name implies, distance learning is the learning that is put into operation from a distance. The students are living in other cities or countries and are making use of internet to acquire information, prepare reports and assignments and communicate with their supervisors.

Achievement of Academic Goals,

The use of technological tool has rendered an indispensable contribution in the achievement of academic goals. Apart from acquisition of knowledge and generating awareness in terms of the various areas, it is used to carry out number of other tasks and activities.

Teachers want to improve student's performance, and technology can help them accomplish this aim. To mitigate the challenges, administrators should help teachers gain the competencies. Curriculum is a systematic and intended packaging of competencies that is knowledge, skills and attitudes they are underpinned by values. Learners should acquire these values through organized learning experiences both in formal and informal setting. Good curriculum plays an important role in forging life-long learning competencies, social attitudes and skills. Besides, it contributes to thinking skills, creativity and the acquisition of relevant knowledge that is applicable to their daily life and careers. Teachers are the major pillars in the teaching and learning process. Teachers must implement the curriculum in their own classroom sticking to the plan that has taken so much time, careful planning and effort to create. Reflection on a curriculum allows teachers and others involved in the process to find any weaknesses in the curriculum, and attempt to make it better.

Teacher's prior beliefs and practices can pose challenges, not only because teachers are unwilling to change in direction of the policy, but also because their understandings may interfere with their ability to interpret and implement the reforms in ways consistent with the designer's intent.

This study presents the challenges of educational technology and curriculum implementation whose main focus is to show that there is insufficient use of technological tools in the classrooms. After looking at the introduction, the context of the study, the justification of the study. We will however look at the next chapter.

CHAPTER 1: RESEARCH PROBLEM

This chapter focuses on the background to the study, statement of the problem, research questions, main research questions, specific research questions, general objectives, specific objectives, specific hypothesis, scope of the study, and the definition of key words.

STATEMENT OF THE PROBLEM

Today's generation of students learn differently than those of the past. Technology is all around them, and access to a wealth of information is only a click away. The use of technology in the classroom has the benefit of increasing academic achievement from the perspective of both the students and the educators.

The Aim of this study is to investigate the experiences and challenges faced by school stakeholders management team (SMT) and educators regarding the use of educational technology for curriculum implementation.

After observation during 2 months' internship in GBHS Ebolowa, the researcher realized that teachers are not well versed with educational technology tools and this however makes them not to teach all topics in their scheme of work .most of the students in the various classes do not have a mastery of any technological tool which may aid to enhance learning. The researcher then seeks to find out if the challenges of educational technologies affect curriculum implementation by the teacher.

RESEARCH QUESTIONS

1-1 GENERAL RESEARCH QUESTION

In order to find out if the challenges of educational technology or didactic materials affect curriculum implementation the following question was been asked,

To what extent do educational technology challenges affect curriculum implementation?

I-2 SPECIFIC RESEARCH QUESTION

- How can teacher's attitudes and beliefs influence curriculum implementation?

- How does the lack of educational technology affect curriculum implementation?

- How the failure to use educational technology as a research tool can affects curriculum implementation?

I-3 General objectives

The main objective is to examine the challenges that most teachers face when using educational technology in implementing the curriculum.

1-4 SPECIFIC OBJECTIVE

-To investigate how teachers' attitudes and beliefs towards educational technology on curriculum implementation.

-To determine how the lack of educational technology knowledge influence curriculum implementation.

-To verify the extent to which failure to use educational technology as research tools on curriculum implementation.

1-5 RESEARCH HYPOTHESIS

Hypothesis is intelligent guesses to the solution of a problem. These guesses about relationship between 2 or more variables that are of critical interest is the solution of a research problem. **H_1**: There is a significant relationship between teacher's attitudes and belief in educational technology and curriculum implementation.

Ho_1: There is a significant relationship between teacher's attitude and belief in Educational technology and curriculum implementation

Ho_2: There is a significant relationship between lack of educational technology and curriculum implementation.

Ho_3: There is a significant relationship between failure to use educational technology as research tools and curriculum implementation.

1-6 Significance of the Study

Every research work is aimed at solving some exiting problems in education. It is hoped that findings from this study will be of great importance to teachers, students and the government.

Educational technology plays a critical role in the teaching and learning of today's world. It was hoped that this study would help in understanding the problems that most teachers and administrators face when implementing educational technology in the teaching and learning process. The findings of this research have deep significance for the enhancement of secondary school teachers' used of educational technology not only in the selected area of study but Cameroon as a whole. The research may be important to the principals, teachers, students and other stakeholders of education in Ebolowa municipality in particular and Cameroon in general. It may help the school leaders to be aware of the importance educational technology tools in the teaching and learning process

It may help the school teachers to revisit and enrich themselves with new knowledge on modern day technology.

It may help the teachers to improve instruction in the classroom at their best due to positive use of educational technology devices

It may help the government to define key aspects of educational technology as a guide policy to all teachers' training colleges in Cameroon.

To the teacher's findings from this study will enable them to acquire knowledge and skills on the production and the use of educational technologies thereby enhancing curriculum implementation.

To the government findings from this study will enable her achieve stated educational goals. It will also provide enough educational technology needed in schools to ensure effective curriculum implementation.

The effective use digital learning in classrooms can increase student's engagement, help teachers improve their lesson plans and also facilitate personalized learning.

Teachers can leverage technology to achieve new levels of productivity, implement useful digital tools to expand learning opportunities for students and also increase students support and engagement. It also enables the teachers to improve their instruction methods and personalize learning. Schools can benefit from technology by reducing the costs of physical instructional materials enhancing educational program efficiency and making the best use of the teacher's time

1-7 Scope of the Study

The study was delimited in both content wise and geographically. The contents were delimited to investigating effect of independent variable on the dependent variable. Dependent variable according to Amin (2005) is the primary interest to the researcher. Curriculum implementation which is the act of imparting knowledge through teaching and learning is the dependent variable. According to Amin (2005) independent variable is the cause supposed to be responsible for change in the dependent variable. The independent variable is conceptualized as educational technology challenges.

Geographically the scope of this study was delimited to 3 government secondary schools in Ebolowa municipality. In these selected schools only the principals and teachers were concern with the study. This means that it does not include primary schools or students found in the area of study.

To carry out the study it was not an easy task to investigate the topic. The researcher had to go to the selected schools so many times before collecting the questionnaires. This is due to the fact that most teachers were reluctant to answer the questions. It was very difficult for the research to investigate the problem due to personal reasons but she succeeded to do the work which is essential.

1-8 DEFINITION OF KEY WORDS

Curriculum:

It is the outline of concepts to be taught to students to help them meet the content standards.

Implementation:

It is the carrying out, execution, or practice of a plan.it is the action that must follow any preliminary thinking in order for something to actually happen.

Educational Technology:

It is concerned with integrating technology into teaching and learning which specifically focuses on introducing, reinforcing and extending the knowledge and skills to learners so that they can become exemplary users.

Challenges:

This means to arouse or stimulate especially by presenting with difficulties.

CHAPTER 2: LITERATURE REVIEW

This chapter examines what author's and experts have said and written in relation to the challenges of educational technologies or teaching aids on curriculum implementation, this however serves as a lens for this study. This chapter examines literature and theoretical framework to determine the challenges of educational technologies and curriculum implementation. The case of Teachers of Ebolowa municipality, south region of Cameroon.

Theoretical framework

History has proved that the development of educational technology impacts the development of education; the use of educational technology in the classrooms has opened a new page for instruction and learning. However, educational technology is only a tool. The effectiveness of using this tool depends largely on how instructors treat students' learning process and how they select educational technology related theories, and how they implement related theories in specific instruction. Theoretical research pointed out that the strategy of optimizing instruction and learning guided by the theory of behaviourism is linear stimulus/response; scholars of cognitivist adopt information processing systems to optimize the instruction and learning and focus their studies on learners' thinking process; the instruction guided by constructive theory fully optimizes students' learning initiatives through using educational technology in instruction, so that students themselves can explore and construct their knowledge. Different theories support different instructional strategies, thus, the design, development and implementation of educational technology are also different. The strategy of linear stimulus/response was reflected in the instruction through radio, film and television in the 20th century, and in the development and use of drill and practice software and software packages in the 80s of the 20th century. Cognitivist was popular during the 60s and 80s in the 20th century. It stimulated the development of the personal computer system with the simulation of human brains' thinking process. The influence of constructivism on the development of educational technology in schools was mainly in late 20th century on the multimedia applications, online interactive learning and today's rapid emerging mobilization and handheld electronic devices which provide an instructional platform on which students can self-control learning contents, activities and progress without restrictions of time and space (Whelan,

2005).Issoff and Scanlon (2002) have reviewed 30 years of research papers on the educational technology related theories and practice, discussed the influence of related theories on the artificial intelligence in education and the interactions between human being and computers. They believe that educational technology specialists, while engaging in the design of educational software and participating in the curricular development, should understand students' complex learning situations from multi-faceted perspectives and take schools' specific environment and students' cultural background into consideration. Different theories affect various disciplines at different times and places of teaching practice. Looking at the various theories, they divided educational technology related theories into two categories. One class is used to provide the guidance for the design of artificial intelligence system and interactions between human beings and computers and the development of effective instructional materials; another focuses on the education to help people understand different situated instructional cultures and the effects of educational technology on students' learning outcomes. The former enriches the content updating along with the development and utilization of educational technology and related experimental researches; the latter is relative stable, impacting our innovative instruction and curriculum, data analysis and instruction/learning assessment. The authors of this paper found that research on educational technology related theories are more focused on the application of educational technology in education. Some scholars pointed out in the early 1980s that educational technology did not only refer to electronic devices, computers, it also became a branch of behavioural science. Educational technology specialists therefore cannot see a computer as an electronic device, but should link educational technology closely to the instruction and learning. The instructional environment mainly supported by computing technology has developed a new thinking of instruction and learning, and set new goals for education. Educational artificial intelligence system is designed to integrate the artificial intelligence projects into instructional environment, helping students learn with computing simulated instruction and the support a variety of learning theories. Artificial intelligence system in education has greatly impacted the development and application of educational technology. Research has shown that, since 1990s artificial intelligence in education has been developed to help people understand how to apply educational artificial intelligence effectively in instruction and learning from its original application of how to simulate theory-guided classroom instruction and leaning activities (Issroff & Scanlon, 2002).It has at least two

points of view on the Situated Cognition Theory, neurophysiological and sociological. From the neurophysiological point of view, the process of constructing knowledge occurs simultaneously with learning behaviours. People construct knowledge through scenarios observing, talking with each other, and interaction of learning. From a sociological point of view, one's direct participation in social communication activities is the main way to construct new knowledge structures. Learning is a process of constructing knowledge; while learning scenario and social environment are the foundations of According to horn [1999] a theory is a principle on which the subject of study is based.it is hence a combination of logical concepts or prepositions which shows the relation between, amongst variables in an attempt to explain a given phenomenon.

Fullan and pomfred [1997] hold that effective implementation of the curriculum requires time, personal interaction and contacts, in-service training and the other forms of people based support. Research has shown time and again that there is no substitute for primary or personal contact among implementation planners if the difficult process of learning old roles and learning new ones to occur.

Theory is in line with this study because for a teacher to effectively implement the curriculum he needs in-service training to update his skills in curriculum implementation. The teacher needs to acquire skills in the production and uses of educational technologies that will enable him teach effectively and the learners learn effectively.

The curriculum concept and approaches

According to Malcolm [1999.10] a clear version of the curriculum in action and good documents are a first step whether at school or national level. Investments in teacher's participation, teacher's development and management education.it was that the ministry of education should not develop a new curriculum on its own, nor impose a single model on all schools in the country.

According to Ornstein and Hunkins [1993] the main curriculum approaches entails the following behavioural approach which is the oldest and still the reference approach to curriculum.it is primarily concerned with observable and measurable aspects of the human behaviour. This however means that the behavioural approach focuses on what the learners should be able to do as a result of the teaching and learning processes. The important thing to note is that each curriculum theory aligns with a specific pedagogy, and this has implications for choosing teaching strategies, assessments, program evaluation criteria, learning analytics models, etc. Moodle provides a wide variety of tools to support these different curriculum theories.

Academic

We don't want to focus only on the highest-potential students. We also want to make sure that all students (or as many as possible) achieve essential competencies. In this case, we have different tools, targets and process indicators. In this curriculum theory, the institution prioritizes these goals:

- All students complete course
- All students master designated competencies
- All students obtain job

Idealist

In the Idealist curriculum theory, we stress the inclusion of all students and social constructivist learning.

- All students participate fully in the course (are not marginalized)
- All students commit to ideals
- All students carry learning to the real world

We believe learners adopt new ideals through open dialogue and engagement, and Moodle provides robust Forum tools for supporting discussion.

However, the commitment to such ideals in the real world can't be measured within the constraints of a course or training program. To follow up with learners "in the real world," we might need a tool like this third-party Moodle module, "Reengagement". This tool contacts learners at a specified time after an event, asking them to return to the course to complete additional activities.

MODELS OF CURRICULUM IMPLEMENTATION

There are several models of curriculum implementation but for the purpose of this work only the selected ones that are applicable in implementing curriculum in our various institutions are discussed below:

ORC model (Overcoming Resistance to Change)

The letters 'ORC' stands for 'Overcoming Resistance to Change'. This model rests on the assumption that the success or otherwise of curriculum implementation primarily depends on the impact the developer makes on the users of curriculum such as, teachers, students and the society in general. If we desire change then we must address people's misgivings, their misapprehensions, or other such related factors.

We must point out to them that what the curriculum incorporates, wherever possible and appropriate, their values, assumptions and beliefs. And while addressing the persons within the system, we should remember that to get the desired result the subordinates should be motivated rather than ordered. Curriculum developers should, therefore, identify and deal with the concerns of the staff in various educational institutions when implementing new curriculum. We can group the concerns into the following four broad developmental stages:

Developmental stage versus Developmental concerns: they are the following

1. **Unrelated Concerns**: At this stage, teachers do not perceive a relationship between themselves and the suggested changes. For example, if a new programme is being developed, a teacher at this stage may or may not be aware of this effort. If he/she is aware of it, he/she may not consider it something that concerns him her. The teacher would not resist the change, because he/she really does not perceive the change as something that influences his/her own personal or professional domain.

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Constructivism Theory of Learning

Constructivism is basically a theory which is based on observation and scientific study, about how people learn. It says that people construct their own understanding and knowledge of the wo rld, through e experienceing things and reflecting on those experiences(Bereiter, 1994). When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, exp lore, and assess what we know. In the classroom, the constructivist view of learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, rea l-world problem solving) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. The teacher makes sure he/she understands the students' preexisting conceptions, and guides the activity to address them and then build on them(Oliver, 2000). Constructivism has roots in philosophy, psychology, sociology, and education. But while it is important for educators to understand constructivism, it is equally important to understand the implications this view of learning has for teaching and teacher professional development(Tam, 2000).Constructivism's central idea is that human learning is constructed, that learners build new knowledge upon the foundation of previous learning. This view of learning sharply contrasts with one in which learning is the passive transmission of information from one individual to another, a view in which reception, not construction, is key. Two important notions orbit around the simple idea of constructed knowledge.

The first is that learners construct new understandings using what they already know.There is no tabula rasaon which new knowledge is etched. Rather, learners come to learning situations with knowledge gained from previous experience, and that prior knowledge influences what new or modified knowledge they will construct from new learning experiences(Phillips, 1995).The second notion is that learning is active rather than passive. Learners confront their understanding in light of what they encounter in the new learning situation. If what learners encounter is inconsistent with their current understanding, their understanding can change to accommodate new experience.

Learners rema in active throughout this process: they apply current understandings, note relevant elements in new learning experiences, judge the consistency of prior and emerging knowledge, and based on that judgment, they can modify knowledge(Phillips, 1995).According to Driscoll (2000), constructivism learning theory is a philosophy which enhances students' logical and conceptual growth.

The underlying concept within the constructivism learning theory is the role which experiences-or connections with the adjoining atmosphere-play in student education.The constructivism learning theory argues that people produce knowledge and form meaning based upon their experiences. Two of the key concepts within the constructivism learning theory which create the construction of an individual's new knowledge are accommodation and assimilation. Assimilating causes an individual to incorporate new experiences into the old experiences. This causes the individual to develop new outlooks, rethink what were once misunderstandings, and evaluate what is important, ultimately altering their perceptions. Accommodation, on the other hand, is reframing the world and new experiences into the mental capacity already present. Individuals conceive a particular fashion in which the world operates. When things do not operate within that context, they must accommodate and reframing the expectations with the outcomes. Constructivism is often compared to objectivism, which is usually quoted as being the counter point or direct opposite of constructivism. Much of objectivist theory is based on the work of behaviorists such as Skinner (1953.) Objectivists believe that information itself is knowable outside the bounds of any human mind, and that any individual interpretation of knowledge can be said to be either correct or incorrect. Objectivists view individual pieces of in format ion as symbols or currency that can be acquired by humans, and can be transferred from human to human should the correct learn ing conditions exist. (Jonassen, 1991) While much of the early work in formal instructional design derived from objectivist theory, modern academic minds have come to accept that learning environments which more closely match the needs of constructivist learning may be more effective. The perceived benefits of constructivist learning may be particularly valuable where the teaching of complex skills, such as problem solving or critical thinking skills are concerned (Tam, 2000.)If we accept that constructivist theory is the best way to define learning, then it follows that in order to promote student learning it is necessary to create learning environments that directly expose the learner to the material being studied. For only by experiencing the world directly can the learner derive meaning from them. This gives rise to the view that constructivist learning must take place within a suitable constructivist learning environment. One of the central tenants of all constructivist learning is that it has to be an active process (Tam, 2000);therefore , any constructivist learning environment must provide the opportunity for active learning.

Jonassen (1996) describes four principles of constructivist learning: the principle of knowledge construction; the principle of active learning; the principle of social interaction and cooperative learning; and the principle of situated learning. According to the principle of knowledge construction, knowledge is not simply transmitted to learners, but constructed by learners themselves using their own interactions and experiences with those phenomena in meaningful learning environments. Teaching is not seen as a process of transmitting, imparting or mapping the teacher's knowledge onto the learner, but as helping learners to construct their own knowledge and to reflect on it by guiding them in the meaning-making process. Knowledge building also includes opportunities for learners to articulate, express and represent what they have learned in a verbal, written, visual or auditory format (Jonass en, 1996:3–5). The principle of active learning states that knowledge construction results from the activity. Constructivists believe that knowledge of phenomena cannot be separated from experiences and interactions with those phenomena. The implication is that the meaning constructed of phenomena emerges from the interactions with them (Jonassen, 1996:3). Social interaction among individuals plays an integral part in Divergent views of the pertinence of computing for teaching and learning The rationale around much argument against the use of computers in the school system focuses more on the development of critical resources at times of economic and fiscal hardship on the pertinent of ICT for African classrooms. Clark [1985] argued that there is no medium which has any advantage over another. He maintained that it is the uncontrolled effects of instructional method and content together with a novelty effect that account for any learning improvements.

According to Rogers' Theory of Diffusion of Innovations, those early technology users tend to accept new technology faster than those late technology users. The theory of diffusion of innovations is widely applied in educational technology training. Its application value is that the training department and trainers are able to match the training plan and design with trainees' beliefs, attitudes and motivation to accept new technology. When teachers and students are exposed to new educational technologies, their beliefs and understanding of new technology determine the degree of their acceptance of the new technology. Therefore, while school or training department introduces and promotes newest features and functions of a new educational technology to teachers and students, one of the effective strategies is to maximize the use of real instructional cases in classrooms to demonstrate the strengths of educational technology in improving the effectiveness of instruction and learning, fully promoting instructors' teaching and students' learning motivation and helping teachers and students maintain a good state of mind and a positive learning attitude. Information Processing and Cognitive theory is originally a theoretical pillar in the interactive learning between human beings and computers. But recently, researches have shown that models of people's interaction with computers are impacted by a variety of theories. For example, because an analysis of a cognitive unit is far beyond the framework of individual's cognitive process, distributed cognition theory has also laid a theoretical foundation for the interactive learning and research between human beings and computers. One's cognitive development not only depends on one's learning behaviours, but also relies on one's cognitive understanding and cultural background (Hollan, Hutchins & Kirsh, 2000). The purpose of human-computer interaction in learning process has not been changed; however, scholars and researchers have a common recognition with the cultural, environmental and other impacts on the learning process, and have applied these factors into the assessment of human's interactive learning through computers. Some scholars also find that, originally, the human-computer interactive learning was limited by specific discipline and specific instructional.

"Experiential Learning Theory." Applying experiential learning theory in computer-assisted instruction and educational game and scenario-simulation design is one of effective ways to optimize instruction. But understanding experiential learning theory is the foundation of optimizing instruction and learning environment. Relying on one's experience alone, one cannot effectively acquire knowledge, develop thinking skills and improve problem-solving and decision-making skills.

The implementation of experiential learning theory requires us to create an optimal learning environment. Experiential learning environment is designed to provide learners opportunity to construct experimental knowledge structure, knowledge feedback and update to optimize instruction. The key is that we must be able to effectively balance the "discovery instruction" design and "heuristic-guided instruction" design. Today, supported by the rapid development of educational technology, creating experiential learning environment is no doubt an effective strategy to optimize instruction with integration of technology and experience. However, this strategy is a double-edged sword. If the experience is without support of appropriate educational technology and well-designed instruction, the effectiveness of experiential learning would be counterproductive. Maddux and Cummings (2004) found that educational technology had its thriving splendour in the past half century, but it had short-lived doom. The latter is quite common in the field of education. Some very creative and potential new technologies died out even before they were put onto the market to compete against the fray. One reason was the lack of a transition of results of research to instructional practice in education. The other was teacher education could not make pre-service and in-service teachers recognize and understand the importance of research. In addition, teachers and school administrators tended to ignore educational research, were lacking in skills of conducting educational research, and could not correctly assess research findings. Some education researchers, in order to pursue the numbers of publication, ignored the quality and significance of research to guide instructional and learning practice. However, the misfortune and short-lived doom of new educational technology and educational software in educational practice in schools were mainly caused by the lack of a foundation of applied research on educational technology related theories; instruction and learning in the classroom were lacking in the theoretical guidance of using effective educational technologies. The authors of this paper believe that the research on the educational technology related theories should be able to be applied into educational practice to optimize the instruction and learning. The significance of a theory cannot only be determined by its own theoretical underpinnings, but should be examined by its application effect on the effectiveness of instruction and learning.

LITERATURE REVIEW

Technology of all kinds has seen widespread integration to daily life, from cell phones with finger print scanners ,to cars with integrated gps navigation.it is only natural that the effects of technology on student life be studied from a teaching perspective.in order to understand how best to implement technology in the classroom ,it is important to provide a baseline.

FARRANT 1976 says when a professor discovers something new as a result of his research, the most effective way he can pass onto others the fruit of his work is by writing a book about it, but as a specialist his book will likely be used at that moment by limited number of people and will be used in future by teachers as reference book.

Fullan and Pomfret 1977.293 said without the text books skills, concepts, and content cannot be taught. In the absence of any other available source of information, the text book becomes, Fullan and Pomfrets view is very much in line with the study because in a poor country like ours, more teachers rely on the text book as the only source of content. When these reference text books are not available or insufficient teachers cannot implement the curriculum effectively. This goes a long way to explain why some teachers resort to the taught and tested curriculum instead of implementing the written curriculum.

Raising children's attainment

There is a substantial body of research that has examined the impact of digital tools and resources on children's attainment in a range of areas. Higgins et al (2012) provide a summary of research findings from studies with experimental and quasi-experimental designs, which have been combined in meta-analyses to assess the impact of digital learning in schools. Their search identified 48 studies which synthesised empirical research of the impact of digital tools and resources on the attainment of school age learners (5-18 year olds). They found consistent but small positive associations between digital learning and educational outcomes. For example, Harrison et al (2004) identified statistically significant findings, positively associating higher levels of ICT use with school achievement at each Key Stage in England, and in English, maths, science, modern foreign languages and design technology. Somekh et al (2007) identified a link between high levels of ICT use and improved school performance. They found that the rate of improvement in tests in English at the end of primary education was faster in ICT Test Bed education authorities in England than in equivalent comparator areas. However, Higgins et al note that while these associations show, on average, schools with higher than average levels of ICT provision also have learners who perform slightly higher than average, it may be the case that high performing schools are more likely to be better equipped or more prepared to invest in technology or more motivated to bring about improvement.Higgins et al report that in general analyses of the impact of digital technology

on learning, the typical overall effect size is between 0.3 and 0.4 - just slightly below the overall average for researched interventions in education (Sipe & Curlette, 1997; Hattie, 2008) and no greater than other researched changes to teaching to raise attainment, such as peer tutoring or more focused feedback to learners. The range of effect sizes is also very wide (-0.03 to 1.05),which suggests that it is essential to take into account the differences between Cox 1999 points out that the provision of basic learning materials differ from one country to another and various approaches are used. While some countries struggle to establish mechanisms for the production of relevant curriculum materials, other focus on the issues of instructional sustainability and role of the government. Some donors recommend the withdrawal of public sector from the production of educational technologies, other supply gifts of text book or support the expansion of government presses.

From the paragraph above, it can be seen that countries that supply gifts of text books and encourages press expansion hold that text books play a vital role in the implementation of the curriculum.

Tambo 2003 says text books are the oldest and commonly used teaching materials. They are published in many forms depending on the subjects they are dealing with. They help the teacher to better, unify, organize and diversify teaching. They provide common reading materials and activities plan before hand for a given level. Text books are graded so that introducing new concepts or content proceed from simple to complex and from concrete to abstract.When parents fail to provide text books and work books to their children it can lead to poor curriculum implementation. This is because they are essential tools in the teaching learning process. Without them the teachers cannot teach effectively and the learners cannot learn effectively. The teaching of some core subjects in the curriculum like Mathematics, English language and French language requires that pupils should have text books and related work books. When pupils do not possess these books they cannot learn effectively and the teachers cannot teach effectively.

LACK OF KNOWLEDGE AND UNWILLINGNESS TO PRODUCE AND USE EDUCATIONAL TECHNOLOGIES

Nzeka 1981 holds that teaching aids are objects used by the teacher to enable him teach effectively. Although they are called teaching aids they do not make the work of the teacher easy. On the contrary, it makes it more difficult because he has to acquire or produce and know how to use them consequently a few teachers use teaching aids. He adds that the role of teaching aids in the classrooms makes learning real and fun, through seeing, hearing discovery and doing pupils are motivated to learn effectively.

This goes to support the fact that when teachers are unwilling to produce and use educational technologies they adopt dogmatic teaching methods which are not appealing to pupils.

Farrant 1976 says there is a common misunderstanding that teaching aids make the teachers work easier, but the proof that this is not true is to be seen in the lack of teaching aids among teachers after they have left training colleges. The truth is that teaching aids are not only teachers' aides but pupils' aids. In fact, instead of making the teachers work lighter they often make more work for him but any teacher who is concern about his children is bound to give thought to what is more likely to make them learn.

Despite the fact that to produce and use teaching aids demanding teacher should endeavour to produce and use them because they do not only help him but also help pupils to learn. Mumtaz 2002 holds that there are a wide range of factors that influence educators in adopting the teaching with technological tools. Amongst these are quality of the technological tool, incentive to change and the instructor's readiness to adopt and the ability to evaluate the role of technology in teaching and learning.

From the above paragraph, it can be seen that some teachers do not accept the use of technological tool because they do not have the knowledge to use them or because they do not see the need of using them. This is in line with the non-teaching of an information and communication technology ICT in our schools. Most of the teachers do not have the knowledge and abilities to use modern educational technologies like computers. This is a hindrance in the implementation of the curriculum in this area of study.

Omstein and Hunkins (1998) say curriculum implementation can be seen as a process of professional development and growth involving the ongoing interaction feedback.

This means that for a teacher to be professionally developed him should acquire skills in the production and use of educational technologies.

Baker et Al (1994) hold that planning to teach requires that the teachers make decisions about their learners needs, the most appropriate goals and objectives to help meet these needs, the things to do achieve these goals and objectives and the teaching materials available to teach the lesson.

The above paragraph shows that teaching materials or educational technologies are very important in curriculum implementation of the curriculum.

According to Trucano (2005) educational technologies are valuable tools that can help in the encouragement of collaborative learning as well as increase in learner's performance by improving teaching and learning abilities. They can also help learners to explore education beyond classrooms by providing access to a wide range of resources and information, promoting scientific inquiry and discovery and allowing learners to participate actively in the classroom.

The above paragraph goes to support the fact that educational technologies play a vital role in curriculum implementation. This failure to use them leads to poor implementation. Molerda 2003) says that technology is the solution to instructional problems that involve social as well as machine technology with concern for improving effectiveness and efficiency of learning in educational context.

This goes to support the fact that teachers should produce and use educational technologies to ensure effective and efficient implementation of the curriculum.

Tambo (2003), says implementation means to put into effect the decisions that were made in the planning stage particularly those relating to teaching methods, strategies, learning tasks and

activities. While planning is done when teachers are alone implementation is done when teachers are interacting with learners. The teaching skills that the teacher needs to have includes, presenting materials according to an appropriate sequence, listening, motivating, demonstrating, encouraging learners to give correct responses and other skills which are needs in effective teaching.

This supports the fact that educational technologies are very important in curriculum implementation process. They captive learner's attention to the lesson and encourage inquiry teaching, problem solving and inferential thinking in them.

General hypothesis	Research hypothesis	Independent variable	modalities	indicators	Dependent variables	indicator	modalities	measurable scale	Statistical test
There is a significant relationship between educational technology and curriculum implementation	Ho1:there is a significant relationship between teachers attitude and belief towards educational technology and curriculum implementation	Challenges of educational technology	To investigate how teachers attitudes and belief in educational technology influence curriculum implementation	Strongly Agree Strongly disagree Agree Disagree	Curriculum implementation	Teachers see e-learning as an ineffective way of implementing the curriculum	Strongly agree disagree strongly Disagree Agree	Interval	Pearson
	Ho2: there is a significant relationship between lack of educational	Challenges of educational technology	To determine how lack of educational technology knowledge	Strongly Agree Strongly Disagree	**Curriculum implementation**	Technological devices are not available	Strongly agree Agree Disagree	interval	Pearson

	technology and curriculum implementation.		influence curriculum implementation	Agree Disagree		for teachers to use as they implement the curriculum	Strongly disagree		
	Ho3: Failure to use educational technology as a research to tool in curriculum implementations	Challenges of educational technology	To verify the extent to which failure to use educational technology as a research tool influence curriculum implementation	Strongly Agree Strongly Disagree Agree Disagree	Curriculum implementation	Teachers do not have technical know-how to use educational technology to implement curriculum	Strongly agree Strongly disagree Agree Disagree	Interval	Pearson

In this chapter we have seen the various theories and literature review of educational technology and curriculum implementation in which educators and experts have written relating to the challenges of educational technology. The theoretical research pointed out the strategy of optimizing instruction and learning and the synoptic table which showed all the various modalities and indicators.

CHAPTER 3: RESEARCH METHODOLOGY

This chapter examines the research design, research area, target population, sample size and sampling procedures, research instrument, validity and reliability of the research instrument, administration of the instrument, scoring of the instrument and the procedures of data analysis.

Research design

The study involves the challenges of educational technology and curriculum implementation. In order to investigate challenges of educational technology and curriculum implementation, descriptive survey design was employed. According to Orodho (2005) a descriptive survey is a method of collecting information by way of questionnaires or interview to a selected sample. This is because it enables the researcher to collect and describe large variety of data related to challenges of educational technology.

Seyoum and Ayalew (1989) agreed that descriptive survey design is more appropriate to gather several kinds of data in a broad size to achieve the objectives of the study. It is mostly used to collect information about people's attitude, opinions, habits or any other variety of social issues. This design is deemed appropriate for the study because the researcher will collect, analyse and report information as it exists on the field without manipulation of the variables under study. Seidu (2006) says descriptive research is concerned with the conditions or relationships that exist such as determining the nature of prevailing conditions practice and attitude, opinion that are held, processes that are going on or trends that are developed.

Area of the study

This study was carried out in Ebolowa municipality. Ebolowa is blessed with many government secondary schools but the researcher decided to use only schools that have a population of at least 20 teachers. It was carried in three government secondary schools that is Government Bilingual High School (GBHS) Ebolowa, CETIC Mvam Esakoe and Lycee Classique of Ebolowa. This study was restricted to teachers and principals of the above schools.

Population of the study

A population is the complete collection of all elements that are of interest in a particular investigation. According to Amin (2005) a population is the totality of objects or individuals

having one or more characteristics in common that are of interest to the researcher and where inference are to be made in as sampling study. This section seeks to specify the aggregate of items or persons from whom data pertinent to the study were collected and the population to whom the findings of the study were generalised. For this study, the population included the target and accessible population.

Target population

According to Amin (2005) target population refers to the members of the real hypothetical set of people, events or objects to which we wish to generalised the results. The target population sometimes called the parent population may not be accessible to the researcher. The target population comprised of all the teachers and principals of the selected government secondary schools in Ebolowa. The target population usually has varying characteristics and is also known as the theoretical population.

Table 3.1Target population

Selected Schools	**Number of Teachers**	**Number of Principals**	**Total**
GBHS Ebolowa	110	1	**111**
CETIC Mvam Esakoe	65	1	**66**
Lycee Classique	120	1	**121**
Total	**295**	**3**	**298**

Accessible population

According to Amin (2005) accessible population is the population from which the sample is actually drawn. In actual fact, sample results should be generalised only to the sampled population. This population is a subset of the target population and is also known as the study population. It is from the accessible population that the researcher draws her conclusions. The accessible population of this study was made up of 150 teachers and 3 principals drawn from three selected government secondary schools.

Sample size

A sample is a portion of the population whose results can be generalised to the entire population. Sampling is a process of extracting a portion of the population from which generalisation to the

population can be made. The sample for this study was drawn from three government secondary schools in Ebolowa as indicated in table below.

Table 3.2 Sample population of the study

Selected Schools	Number of Teachers	Number of Principals	Total
GBHS Ebolowa	50	1	**51**
CETIC Mvam Esakoe	50	1	**51**
Lycee Classique	60	1	**61**
Total	**160**	**3**	**163**

Sample and sampling technique

According to Amin (2005) a sample is a subset of a population which the researcher wants to study. He reiterated that a sample is a collection of elements of a population while sampling is the process of selecting elements from a population in such a way that the sampled elements selected represents the population. The sample size of the study was made up of 163 respondents and these constituted 160 teachers and 3 principals drawn from four government secondary schools in Ebolowa Municipality.

The researcher made use of the simple random sampling technique and sample size required for a given population from Amin (2005) in selecting the sample which made up the study. Ebolowa is blessed with many government secondary schools. The simple random sampling technique was used in selecting the schools and teachers. The researcher used the simple random sampling technique in order to ease the administration of the questionnaires.

This technique gives all the government secondary schools in Ebolowa with teacher population of 20 and above have equal chance of been selected. The researcher used the simple random sampling by writing each school on pieces of papers. These slips of paper were folded and mixed up in a basket. The researcher asked three persons around to pick, with the intension of using the three schools picked as sample schools. The schools were picked in this order: GBHS Ebolowa, CETIC Mvam Esakoe and Lycee Classique. The teachers in these schools were randomly selected to fill the questionnaires. All the principals of the selected schools were used as part of sample of the study.

Instrument for data collection

Data was collected through the use of questionnaires. According Amin (2005) a questionnaire can be described as a self-report instrument used for gathering information about variables of interest in an investigation. A questionnaire is often a one-time data gathering device on the variables of interest to the researcher. The questionnaire was carefully designed by the researcher and approved by the supervisor. The instrument was designed for teachers and principals and was made up of three sections A, B and C. Section A was mainly for demographic information. Section B comprised of questionnaire items structured such that each moderator variable was followed four items. Section C comprised of items structured to investigate the dependent variable curriculum. The instrument was made up of closed-ended items which were weighted on a likert scale in which teachers and principals were to tick between strongly disagree (SD), disagree (D), agree (A) and strongly agree (SA) against each item of the questionnaire. The weights were as follow SD=1, D=2, A=3 and SA=4. The choice of questionnaire came from the fact that the researcher hoped it was to enable respondents provide valuable information without taking much of their time. The respondents were expected to tick the option that suits them.

Validity of the instrument

According to Amin (2005) a research instrument is said to be valid if it actually measures what it is supposed to measure. Validity means that the instrument measures what is supposed to measure and that the data collected honestly and accurately represents the respondents' opinions. It can also be referred to as the extent to which inferences, conclusions and decisions made on the basis of test scores are appropriate and meaningful. The instrument was designed to be responded by teachers and principals of GBHS Ebolowa, CETIC Mvam Esakoe and Lycee Classique . The validity of the instrument was ensured in the following ways.

Face validity

After the researcher had constructed the instrument, she discussed the items with some classmates and friends who made some corrections. A copy of the questionnaire was forwarded to the supervisor where further corrections were made to improve on the quality of the individual items of the questionnaire. The questionnaire was approved by the supervisor after the necessary corrections. Copies were then printed and ready for administration in the schools concerned.

Content validity

According to Amin (2005) content validity refers to the degree to which the test actually measures or is specifically related to the traits for which it was designed. The content validity of the instrument was ensured by the supervisor. He ensured that the questionnaire items represent measurement in the intended content area.

Reliability of the instrument

According Amin (2005) reliability is dependability or trustworthiness and in the context of measuring instrument, it is the degree to which the instrument consistently measures whatever it is measuring. The research employed an alpha method of examining internal consistency of the instrument. A pilot study of eight questionnaires was administered to eight teachers of government schools which are not sampled schools. The data was input in Statistical Package for Social Sciences via an excel spreadsheet. The data was analysed using alpha and the reliability coefficient of 0.71 was obtained implying a good internal consistency of the instrument.

Administration of the instrument

The questionnaire on challenges of educational technology on curriculum implementation was administered to 163 respondents made up of teachers and principals by the researcher. The researcher went to each of the selected schools for the study with a letter of introduction issued by the head of Department of science of education HTTTC Ebolowa. A copy of the letter was delivered to each vice principal. The instrument was administered by the researcher with the help o the vice principals of the various schools. Since it is difficult to meet all the teachers in school per day, the researcher left the questionnaires with the vice principals of the schools and collected a week later. The questionnaires for principals were collected the same day the researcher visited the selected schools.

Scoring of the instrument

After collecting data from the field and before the researcher conducted the analysis and interpretation, there was need to organize the data in the following steps.

Step 1: Organization and coding of data on the questionnaire

The questionnaires were organized according to the schools selected. The researcher went further to check each questionnaire to ensure that all the items were answered. Out of the 163 questionnaires sent to the field for administration, 150 questionnaires were returned completely

filled. The researcher went further to assign codes to all the variables starting with the demographic variables to the variables of the study. Demographic information was coded as follows gender: male=1, female=2, school: GBHS Ebolowa=1, CETIC Mvam Esakoe =2, and Lycee Classique =3, qualification : A/L=1, B. degree=2, masters=3, PhD=4, years of teaching: less than six years=1, 6-12 years=2, 12 and above=3.

Step 2: Capturing data

Data from the questionnaires was entered into the statistical package for social sciences version 20. The researcher started with the variable view editing window which ten attributes. All these attributes were correctly filled and then the researcher moved to the data view editing window where the codes assigned for the variables were filled in each column representing a variable and each row representing a participant.

Step 3: Correcting errors in the coding

Mistakes are always inherent in entering data. After all the data was entered in the data view editing window and variable view editing window, the researcher went through the data again to ensure that mistakes are corrected. Attention was given to the entire column to make sure the data was correctly entered.

Method of Data analysis

A spread sheet was established to record all data collected in the aggregate form to protect anonymity. The first set of data was descriptive in nature while the second part used inferential statistics to verify the hypotheses. Descriptive statistics consisted of the use of tables showing frequencies and percentages as well as pie charts. Inferential statistic technique used the Statistical Package for Social Sciences version 21 to verify the hypotheses at the 0.05 level of significance.

CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA

The purpose of this research was to investigate the influence of educational technology challenges on curriculum implementation in Ebolowa municipality. This investigation was done using closed ended questionnaire and the following research questions were examined in the study: -How can teacher's attitudes and beliefs influence curriculum implementation?

-How does the lack of educational technology affect curriculum implementation?

-How can the failure to use educational technology as research tool affects curriculum implementation?

The analyses presented in this chapter were performed using data collected from the 18th-26th April 2021 from three schools in Ebolowa. The chapter is organized in two sections. The first section is a presentation of survey findings, descriptive statistics and frequencies of the background variables. The second section covers the presentation of research findings and verification of the hypotheses.

Return rate of teacher questionnaire

Table 4.1: Teacher questionnaires distributed and usable questionnaires

Distributed	Returned	Returned Rate	Incomplete	Complete	Adjusted returned rate
163	150	92.02	0	150	92.02

Table 6 indicates that out of the 163 questionnaires administered, 150 were returned giving a return rate of 92.02%. Since there were not incomplete questionnaires returned, the researcher worked with the 150 questionnaires returned.

Survey Findings, descriptive statistics and frequencies

Table 4.2 Summary of item and variable characteristics used in the study for teachers and principals

Variable Name	Item Description	Recorded code
Gender	Gender of teachers	1=Male 2=Female
School	Name of school	1=GBHS Ebolowa 2=Cetic Mvam Esakoe 3=>Lycee classique
Qualification	Highest Qualification of teachers	1=Advanced Level 2=Bachelor Degree 3=Masters 4=PhD
Experience	Years of teaching	1=Less than 6 years 2=6-12 years 3=12 years and above

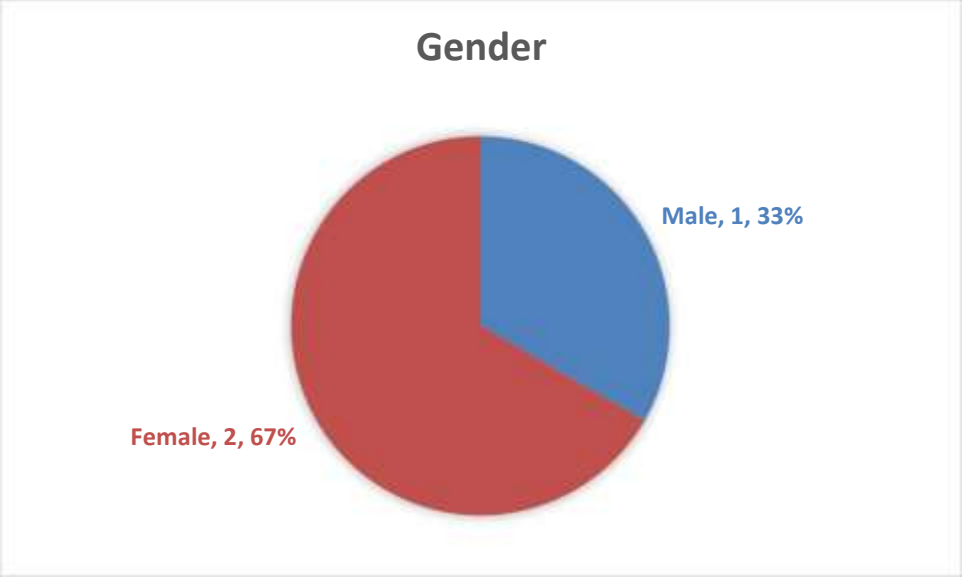

Figure 4.2.1 Gender representation

The above table shows that the teacher respondents were made up of male and female coded 1 and 2 with a percentages of 33% and 67%.

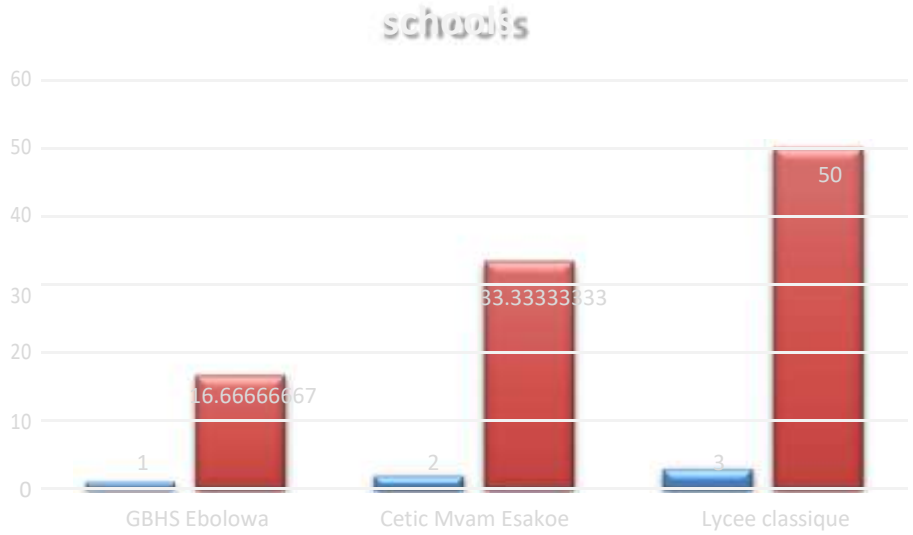

Figure 4.2.2 Names of schools

They are teaching in three different schools as follows GBHS Ebolowa coded 1 with a percentage of 16.7%, Cetic Mvam Esakoe coded 2 with a percentage of 33.33% and Lycee classique coded 3 with a percentage of 50%.

Figure 4.2.3 Teacher's Educational Qualification

As for their qualification, they had advanced level coded 1, Bachelor degree coded 2, Masters coded 3 and Phd coded 4.

Figure 4.2.4 Teaching Experiences

Some have been teaching for less than 6 years coded 1, 6-12 years coded 2, and 12 years and above.

Table 4.3 Teachers' attitudes and beliefs towards using educational technology

S/N	ITEMS	SD	D	A	SA
5	Teachers use educational technology tools like projector to implement the curriculum	75	40	25	10
6	Teachers consider educational technology when planning the curriculum	9	41	67	33
7	Teachers fail to integrate educational technology when implementing the curriculum	91	29	19	11
8	Teachers think integrating educational technology into the curriculum will be distractive to students	20	27	43	65

Figure 4.3 Teachers' attitudes and beliefs towards using educational technology

The figure above reveals the responses of question 5 to 8 show that Teachers' attitudes and beliefs towards using educational technology has a significant in curriculum implementation.

Table 4.4 lack of technological tools

S/N	ITEMS	SD	D	A	SA
9	Most school are equipped with technological devices to facilitates teaching and learning	101	25	15	9
10	The school have a computer laboratory to for teachers to use for teaching	50	30	20	50
11	The school have constant electricity supply which facilitates the use of technological devices	98	35	15	2
12	The school has constant internet that teachers can to teach through zooming or teleconferencing	120	15	11	4

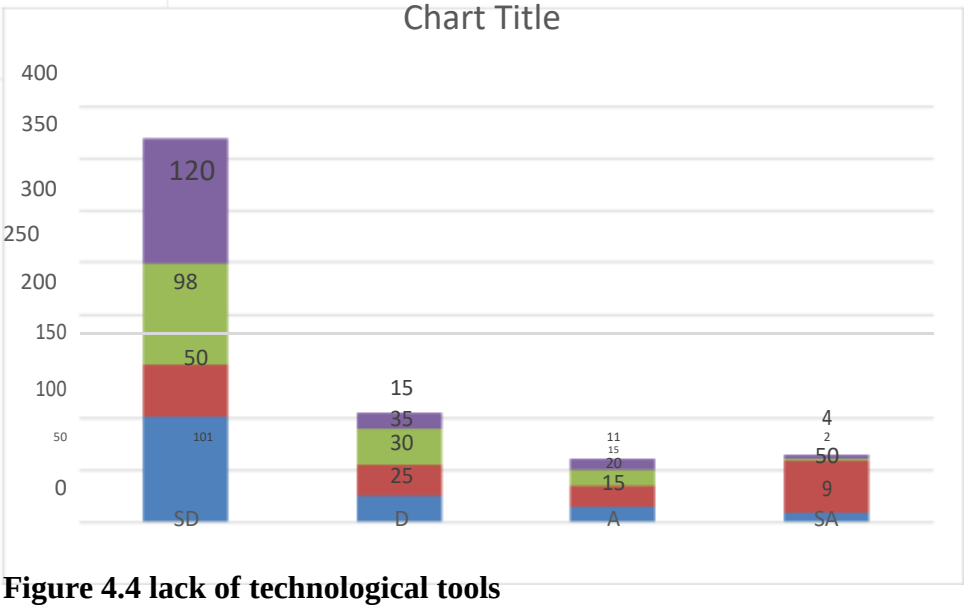

Figure 4.4 lack of technological tools

The figure above reveals the responses of question 9 to 12 show that lack of technological tools has a significant in curriculum implementation.

Table 4.5 Failure to use educational technology as research tools

S/N	ITEMS	SD	D	A	SA
13	Teachers don't use internet as a research tool to upgrade their notes	10	5	50	85
14	Teachers uses only available textbooks to do their research	20	30	45	55
15	Teachers do not use educational technology devices because they are not motivated by the administration	7	18	35	90
16	Teachers are reluctant change because they are been supervised	77	33	13	27

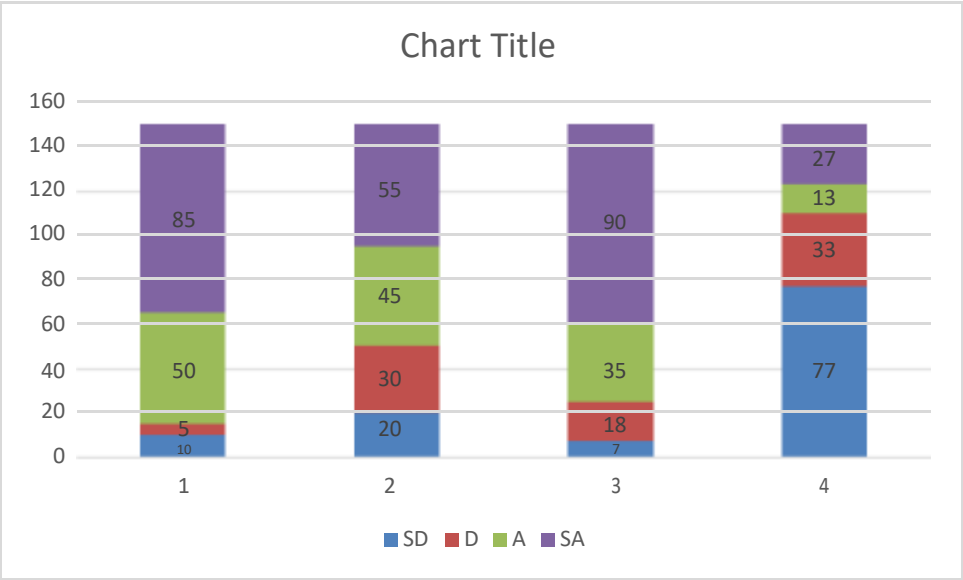

Figure 4.5 Failure to use educational technology as research

The figure above reveals the responses of question 13 to 16 show that Failure to use educational technology as research has a significant in curriculum implementation.

Table 4.6 Curriculum implementation.

S/N	ITEMS	SD	D	A	SA
17	Teachers do not have the knowledge and technical know-how to use educational technology to implement the curriculum	9	10	20	111
18	Teachers see e-learning as an ineffective way of implementing the curriculum	87	33	25	15
19	The technological devices are not available for teachers to use as they implement the curriculum	3	17	15	115
20	Teachers find it difficult to use educational technology to implement the curriculum because it expensive for both teachers and students	15	5	120	10

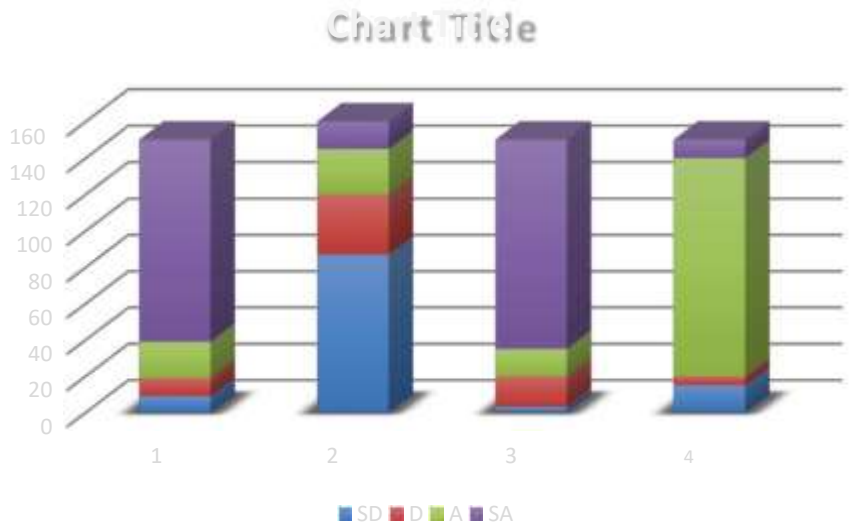

Figure 4.6 Curriculum implementation

The figure above reveals the responses of question 17 to 20, which show that Teachers do not have the knowledge and technical know-how to use educational technology for curriculum implementation.

Research findings and verification of hypotheses for the participants

Descriptive statistics for these variables are presented in a table below.

Descriptive statistics of dependent variable and independent variable (n=150)

Table 4.7 Descriptive Statistics

VARIABLES	Mean	Std. Deviation	N
TABTUEDTEC	10.98	2.125	150
CURRIIMP	11.73	2.863	150

A two tailed correlation matrix was done to inter- match the correlation indices of the predictor variable with the criterion variable as shown in table below. Two tailed correlation matrix of predictor variable and the criterion variable.

Table 4.7.1 Correlations

VARIABLES		TABTUEDTEC	CURRIIMP
TABTUEDTEC	Pearson Correlation	1	-.182*
	Sig. (2-tailed)		.026
	N	150	150
CURRIIMP	Pearson Correlation	-.182*	1
	Sig. (2-tailed)	.026	
	N	150	150

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

H_1: There is a significant relationship between teachers' attitudes towards educational technology and curriculum implementation at $p< 0.01$which is $p< 0.05$.

This hypothesis was tested using the correlation analysis procedure to obtain a correlation coefficient between the impacts of educational technology challenges on curriculum implementation.

The result from **table 4.7.1** above shows that the correlation coefficient for teachers' attitudes and beliefs towards the use of educational technology was (-.182) with a significant level of <0.01 at 148 degree of freedom. A negative correlation coefficient indicates that the teachers' attitude is at variance with curriculum. This therefore indicates that the impact of teachers' attitudes and beliefs towards the use of educational technology with teachers was a significant predictor to implementation at the level of 0.01 in a negative direction. We therefore reject the null hypothesis and accept the alternative hypothesis.

Descriptive statistics for predictor variable and the criterion variable (n=150)

Table 4.8 Descriptive Statistics

VARIABLES	Mean	Std. Deviation	N
LTECTOOLS	12.46	1.860	150
CURRIIMP	11.73	2.863	150

A two tailed correlation matrix was done to inter-match the correlation indices of the predictor variable with the criterion variable as shown in the table below. Two tailed correlation matrix of predictor variable and the criterion variable

Table 4.8.1 Correlations

VARIABLES		LTECTOOLS	CURRIIMP
LTECTOOLS	Pearson Correlation	1	-.320**
	Sig. (2-tailed)		.000
	N	150	150
CURRIIMP	Pearson Correlation	-.320**	1
	Sig. (2-tailed)	.000	
	N	150	150

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

H2: There is a significant relationship p< 0.05 between lack of educational technology and curriculum implementation. This hypothesis was tested using the correlation analysis procedure to obtain a correlation coefficient between the impacts of lack of educational technology on curriculum implementation.

The result from **table 4.8.1** above shows that the correlation coefficient for impact of lack of educational technology and curriculum implementation was (-320) with significant level of 0.01 at 148 degree of freedom. The negative correlation coefficient portrays that lack of technological tools in schools hinders the way teachers implement their curriculum negatively. This therefore indicates that the impact of lack of educational technological tools was a significant predictor to curriculum implementation at the level of 0.01 in a negative direction. We therefore reject the null hypothesis and accept the alternative hypothesis.

Descriptive statistics for predictor variable and the criterion variable (n=150)

Table 4.9 Descriptive Statistics

	Mean	Std. Deviation	N
FUEDTEC	11.75	2.228	150
CURRIIMP	11.73	2.863	150

A two tailed correlation matrix was done to inter-match the correlation indices of the predictor variable with the criterion variable as shown in table below. Two tailed correlation matrix of predictor variable and the criterion variable

Table 4.9.1 Correlations

		FUEDTEC	CURRIIMP
FUEDTEC	Pearson Correlation	1	.296**
	Sig. (2-tailed)		.000
	N	150	150
CURRIIMP	Pearson Correlation	.296**	1
	Sig. (2-tailed)	.000	
	N	150	150

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

H3: There is a significant relationship $p < 0.05$ between failure to use educational technology as research tools and curriculum implementation. This hypothesis was tested using the correlation analysis procedure to obtain a correlation coefficient between the impact of failure to use educational technology as research tools and curriculum implementation.

The result from **table 4.9.1** above shows that the correlation coefficient for failure to use educational technology as research tools and curriculum implementation was (.296) with significant level of $p<0.01$ at 148 degree of freedom. This therefore indicates that the` failure to use educational technology as research tools was a significant predictor to curriculum implementation at the level of 0.01. We therefore reject the null hypothesis and accept the alternative hypothesis.

CHAPTER 5: INTERPRETATION, RECOMMENDATIONS AND CONCLUSIONS

This last chapter of the study presents a summary of the findings, interpretation of the findings, recommendations, suggestions for further study and limitation of the study.

INTERPRET BASED ON THE Findings

The main focus of the study was to investigate the influence educational technology challenges have on curriculum implementation in some selected secondary schools in Ebolowa municipality. Educational technology seems to be one of the most important tools used to enhance the process of teaching and learning in some schools today. Principals encourage teachers to integrate technology in the planning and implementation of the curriculum. Therefore, where teachers are highly motivated, this can be translated into good performance through the use of educational technology and improve the quality of education delivered to students. Based on the above, data was collected from teachers and principals of three secondary schools (GBHS Ebolowa, Cetic Mvam Esakoe and Lycee classique of Ebolowa).

The statistical analysis of the data collected using the Pearson product moment revealed the following findings at $p<0.01$ level of significance.

H_1: There is a significant relationship at $p< 0.01$ between teachers' attitudes towards educational technology and curriculum implementation.

H_2: There is a significant relationship $p< 0.01$ between lack of educational technology and curriculum implementation

H_3: There is a significant relationship $p< 0.01$ between failure to use educational technology as research tools and curriculum implementation.

Interpretation of Findings

H1: There is a significant relationship at $p< 0.01$ between teachers' attitudes and beliefs towards educational technology and curriculum implementation.

This hypothesis was tested using the correlation analysis procedures to obtain a correlation coefficient between the impact of teachers' attitudes and beliefs towards educational technology and curriculum implementation. A two tailed correlation matrix was done to inter-match the

correlation indices of the predictor variable with the criterion variable. The correlation coefficient for teacher (-.182) with insignificant level of .026 at 148 degree of freedom. Data analysis based on this hypothesis revealed that teachers' attitudes and beliefs do have an impact on curriculum implementation. This implies that teachers' attitudes and beliefs towards the use of educational technology in the implementation of the curriculum needs to be motivated to enhance curriculum implementation in the selected schools because the significant level is below 0.05. Following the above result, the alternative hypothesis was retained and the null hypothesis rejected. This leads to the conclusion that there is a significant relationship between teachers' attitudes and beliefs towards the use of educational technology and curriculum implementation. Though teachers may feel that it will take too long a time to integrate educational technology in curriculum implementation.

H2: There is a significant relationship $p < 0.05$ between lack of educational technology and curriculum implementation

This hypothesis was tested using the correlation analysis procedures to obtain a correlation coefficient between the impact of lack of educational technology and curriculum implementation in both teachers and principals participants. A two tailed correlation matrix was done to inter-match the correlation indices of the predictor variable with the criterion variable. The correlation coefficient for the participant was (-.320) with significant level of $p<0.01$ at 148 degree of freedom. This indicates that lack of technological tools in schools is a significant predictor to curriculum at the level 0.01 in a negative direction. This implies that lack of tools were at variance with curriculum implementation. The null hypothesis was therefore rejected and the alternative hypothesis retained. This leads to the conclusion that there is a significant relationship between lack of educational technology and curriculum implementation.

H3: There is a significant relationship $p < 0.01$ between failure to use educational technology as research tools and curriculum implementation.

This hypothesis was tested using the correlation analysis procedures to obtain a correlation coefficient between the impact of failure to use educational technology as research tools and curriculum implementation in the participants. A two tailed correlation matrix was done to inter-match the correlation indices of the predictor variable with the criterion variable. The correlation coefficient for the participants was (.296) with significant level of <0.01 at 148 degree of freedom. This indicates that failure to use educational technology tools as research affects curriculum

implementation. Since the teacher participant significant level is too high at $p< 0.01$, this implies that when teachers don't use educational technology tools to do research, it will affect curriculum implementation negatively hence low academic performance. The null hypothesis was rejected and alternative hypothesis was retained.

The general objective of this study was to examine the influence of educational technology challenges on curriculum implementation in government secondary schools in Ebolowa municipality. Specifically, this study was guided by the following objectives to investigate the influence teachers' attitudes and beliefs towards educational technology on curriculum implementation, to investigate the influence of lack of educational technology on curriculum implementation, to investigate the effects of failure to use educational technology as research tools on curriculum implementation.

The researcher formulated three research questions and derived three research hypotheses which were verified using the statistical Package for Social Sciences (SPSS Vol 21). The descriptive survey research design was used for the study. The researcher used the simple random sampling technique as well as sample size required for a given population from Amin (2005) to obtain a sample size of 163 which constituted teachers and principals from the selected schools from Ebolowa municipality. Data was collected using questionnaire and the findings of the study revealed the following results:

- There is a significant relationship at $p<0.01$ between teachers' attitudes towards educational technology and curriculum implementation.
- There is a significant relationship $p< 0.01$ between lack of educational technology and curriculum implementation
- There is a significant relationship $p< 0.01$ between failure to use educational technology as research tools and curriculum implementation.

The results indicated that the independent variables (teachers' attitudes and beliefs, lack of technological tools, and failure to use educational technology tools) on dependent variable (curriculum implementation) in government secondary schools in Ebolowa municipality were found to be insufficient. These have significant influence on achievement of educational goals and objectives in government secondary schools. In conclusion, this study suggests that the government through the minister of secondary education should equipped the schools with educational technological tools which the teachers can use during the teaching and learning

process. This will in turn improve the academic performance of both the teachers and the students in the classroom. This is because some students learn fast through the world of technology in the world today.

Following the results obtained from the findings some recommendations and suggestions for further study were made.

Implication of the study

The work will be useful in school library for students' further research. If the work is publish in any website it might serve as a guide to many students in the world at large

RECOMMENDATION

Based on the findings of the research, the following recommendations were made: todays primary and secondary students are extremely tech savvy, which is why implementing technology in the classroom has become a major focus for educators. For Teachers,

Teachers use technology to access information, model problem solving and develop simulations that provide greater understanding of how technology is used in the work world.

Teachers should continue to use technology to guide and engage in students in self-directed and group learning activities. There has to be an appropriate matching of teacher's knowledge of content, appropriate use of technology and the desired learning objectives.

Teachers should increase the number of hours they go to the internet to search for information to update their teaching. Through their internet connections, they will have access to resources that even a few years ago would have been impossible even for university researchers.

Teacher's active participation in seminars and workshops is highly recommended. Professional development may also include just in time study groups, online seminars, action research and collaboration with colleagues .the teacher is also an administrator at a lower level in the classroom. ICT can be used to increase administrative efficiency. For this reasons, classroom teachers should improve their skills in simple programs like excel.

It has been noted that teachers may have the best computers, the most sophisticated curriculum software and the fastest internet connection but if the teacher does not know how to use any of that it is not going to improve the teaching –learning process.

For schools,

The intergration of ICT can be effective in the teaching learning process if the following conditions are fulfilled.

Effective leadership,

The school administration must facilitate access to ICT by teachers, students and the administrative staff. Money allocated for the equipment should be used judiciously rather than embezzled. School administration should be committed people.

Building renovation.

Most of the classrooms in Cameroon were built without the idea that ICT would be used. Most classrooms do not have electrical installations, air conditioners, window protectors and solid doors.it is there for difficult to us electrical installations in such spaces.

Teacher training

Once teachers have access to ICT they are more likely to learn on their own and to put into practice knowledge and skills gained through formal training or informal inquiries from colleagues. Students get more benefits from ICT when teachers use them for pedagogical purposes and such practice thrives best in an environment conducive to learning and innovation.

Equipment maintenance.

Some equipment's are supposed to be changed at specific times and the cleaning of the multimedia centres is very necessary for the functioning of the machines. The school should train their personnel to do maintenance rather than depend on commercial technicians.

Effective multimedia centre supervision.

The school administrators should make an inventory of the equipment on a regular basis. They should provide optimum access to the centre and its resources through careful scheduling including of the training opportunities for teachers.

Suggestions for further study

1. Further research should be carried on the same topic but in a different region of Cameroon with different variables.
2. Further research should be carried out on the same topic with a larger sample population

CONCLUSION

This study was focused on the topic the challenges of Educational Technology and Curriculum implementation in some selected Government secondary schools in Ebolowa municipality. The following statement are been guided in this research. Today's generation of students learn differently than those of the past. Technology is all around them and access to a wealth of information is only a click away. The use of technology in the classroom has the benefit of increasing academic achievements from the perspective of both students and the educators. But in a developing country like Cameroon, the use of technology in the classroom to facilitate teaching and learning is still far-fetched. The following research questions guided the researcher to carry out the research.to what extent can teachers attitudes and beliefs influence curriculum implementation, to what extend does lack of educational technology influence curriculum implementation and to what extent does failure to use educational technology were produced tools affect curriculum implementation, three specific objectives were produced from the research as follows; to investigate the influence in teachers attitude and beliefs towards educational technology on curriculum implementation, to investigate the influence of lack of educational technology as research tools on curriculum implementation. Three alternatives and three null hypotheses were stated to guide the research; Alternative Hypothesis there is a significant relationship between teacher's attitudes towards educational technology and curriculum implementation. There is a significant relationship between lack of educational technology and curriculum implementation and there is a significant relationship between failure to use educational technology and curriculum implementation and there is no significant relationship between failure to use educational tech as a research tools and curriculum implementation.

In research methodology the researcher used the descriptive survey method as the research design in which used as her research questionnaire as her research instrument. The population of the study comprised of teachers and principals of the selected schools in Ebolowa municipality. The simple random sampling method was used to select the teachers who answered the questionnaire and the sample was 160 teachers and 3 principals of the schools. The method employed to analyse the data collected was Pearson correlation with the help of statistical package for social sciences version 20 to verify the hypothesis at the 0.05 level of significance. The

verification hypothesis showed that all the three hypothesis had a significant level of less than 0.05 which >means that all the independent variables educational technology has an influence on curriculum implementation. Hence the government and the education stakeholders should put in place favorable conditions that will enable teachers to use educational technology devices to improve academic performances in schools. For this study to be useful to the south region as a whole and Cameroon in general, the study has to be published.it will be proposed to the education stakeholders in the region to forward it at the national levels so that the government will use when planning the curriculum of the different subjects.

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APPENDICE

RÉPUBLIQUE DU CAMEROUN
Paix - Travail – Patrie

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DEPARTEMENT DE DIDACTIQUE DES DISCIPLINES, DES SCIENCES DE L'EDUCATION, DE PEDAGOGIE ET DE FORMATION BILINGUE

AUTORISATION DE RECHERCHE

Je soussigné, **BINGONO Emmanuel,** Chef de Département du Département de Didactique des disciplines, des Sciences de l'éducation, de Pédagogie et de formation bilingue autorise l'étudiant **Bernice MBU ALONG NKWAYUO**, Matricule **19W1288** inscrit en cinquième année, filière *Conseiller d'orientation*

à mener une recherche sur le sujet intitulé **« The Challenges of Educational Technology and Curriculum Implementation: Case Study Teachers of Ebolowa Municipality South Region of Cameroon»**

En foi de quoi la présente autorisation lui est délivrée pour servir et valoir ce que de droit. /-

Fait à Ebolowa, le .....

LE CHEF DE DEPARTEMENT

Pr Emmanuel Bingono

QUESTIONNAIRE FOR TEACHERS

Dear respondent,

I am Bernice mbu Along Nkwanyou a student of Higher Technical Teachers Training College Ebolowa carrying out research on the topic "Educational technology challenges and curriculum implementation. I humbly request you to fill this questionnaire so that I can get reliable data that will make this research successful. This questionnaire is aimed at assessing effects of educational technology challenges on curriculum implementation

Section A: Demographic Information

Please answer the following general questions about yourself. Remember the information you provide will be anonymous and will only be used in aggregate form along with those from other teachers. The information will be treated with confidentiality. There is no right or wrong answer. Mark an "X" in the space provided for your answer. Thanks in advance for your collaboration.

1. What is your gender? Male [ ] Female [ ]
2. Name of your school……
3. What is your highest qualification

4. How many years have you served as a class teacher
   Less than 6 years [ ] 6-12 years [ ] 12 and above years [ ]

Section B: The influence of educational technology challenges on curriculum implementation

Below is a list of statements dealing with your general feelings about yourself. If you strongly disagree, circle 1. If you disagree with the statement, circle 2. If you agree, circle 3. If you strongly agree, circle 4.

1 2 3 4

Strongly Disagree(SD) Disagree(D) Agree(A) Strongly Agree(SA)

Items related teachers' attitudes and beliefs towards using educational technology

S/N	ITEMS	SD 1	D 2	A 3	SA 4
5	Teachers use educational technology tools like projector to implement the curriculum	1	2	3	4
6	Teachers consider educational technology when planning the curriculum	1	2	3	4
7	Teachers feel that integrating educational technology when implementing the curriculum	1	2	3	4
8	Teachers think integrating educational technology into the curriculum will be distractive to students	1	2	3	4

Items related to lack of technological tools

S/N	ITEMS	SD 1	D 2	A 3	SA 4
9	Most school are equipped with technological devices to facilitates teaching and learning	1	2	3	4
10	The school have a computer laboratory to for teachers to use for teaching	1	2	3	4
11	The school have constant electricity supply which facilitates the use of technological devices	1	2	3	4
12	The school has constant internet that teachers can to teach through zooming or teleconferencing	1	2	3	4

Items related to failure to use educational technology as research tools

S/N	ITEMS	SD 1	D 2	A 3	SA 4
13	Teachers don't use internet as a research tool to upgrade their notes	1	2	3	4
14	Teachers uses only available textbooks to do their research	1	2	3	4

15	Teachers do not use educational technology devices because they are not motivated by the administration	1	2	3	4
16	Teachers are reluctant change because they are been supervised	1	2	3	4

Section C: Curriculum implementation

This part of the questionnaire contains closed ended items that focused on curriculum implementation under investigation.

S/N	**ITEMS**	**SD 1**	**D 2**	**A 3**	**SA 4**
17	Teachers do not have the knowledge and technical know-how to use educational technology to implement the curriculum	1	2	3	4
18	Teachers see e-learning as an ineffective way of implementing the curriculum	1	2	3	4
19	The technological devices are not available for teachers to use as they implement the curriculum	1	2	3	4
20	Teachers find it difficult to use educational technology to implement the curriculum because it expensive for both teachers and students	1	2	3	4

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