e-ISSN 2795-3272
p-ISSN 2795-3264

10.5281/zenodo.14523864 Vol. 07 Issue 11 Nov - 2024 Manuscript ID: #01678

The influence of teaching on educational wastage in secondary schools of the Littoral Region of Cameroon

Ndifor Jean Ndemmazea
Department of Curriculum Studies and Teaching, Faculty of Education, University of Buea, Buea, Cameroon

Abstract

The role of education in the growth of any country is so primordial that no one would want to see any lapses in the smooth running of a country's educational system. The examination of any such lapses is, therefore, very essential. The Cameroon government invests significantly to ensure quality education, but the system still faces various challenges. One of these challenges identified is wastage. This study aims to investigate the impact of teaching on educational wastage in English-speaking secondary schools in the Littoral Region of Cameroon. This objective was then transformed through a research question into a research hypothesis. The study employed a mixed research methodology whereby an explanatory sequential research design was used.

The sample population of the study consisted of 568 participants (412 lower sixth students, 112 teachers, 12 vice principals/deans of studies, and 32 heads of department). The research instruments used were the questionnaire, interview guide, and focus group discussion guide. These instruments were validated, and reliability coefficients of 0.743 and 0.768 were respectively obtained for the students' and teachers' questionnaires. Qualitative data were analyzed thematically by grouping common ideas or themes together, while quantitative data were analyzed using descriptive statistics and presented through frequencies and percentages. The hypothesis was tested using the Pearson Product Moment Correlation.

Findings revealed that teaching has an inverse impact on educational wastage, meaning that better teaching results in lower educational wastage. The study recommended that teaching could be made active and lively through student-centered methods and the use of digital technology while encouraging slow learners through remedial teaching.

Keywords: Educational Wastage, Repetition, Stagnation, Dropout, Non-employability, Non-usability of knowledge and teaching.

***How to cite*:** Ndemmazea, N. (2024). The influence of teaching on educational wastage in secondary schools of the Littoral Region of Cameroon. *GPH-International Journal of Educational Research*, 7(11), 41-72. https://doi.org/10.5281/zenodo.14523864

Introduction

The growth and development of every nation depends on its educational system; therefore a critical examination of any weakness is very essential. Education is not only a basic human right, but also a basic component of social and economic development. In planned investments, education pays great economic dividends, especially in the poor countries. This contributes to social progress (Psacharopolous and Woodhall, 1985).The recognition of the noble role of education in society has led to the concerns of the quality of education as provided in the school, family and society. Any institution consumes inputs (resources) for producing output. If the institution is quite efficient, it will make adequate use of appropriate inputs to yield optimum output. If the system of the institution is not efficient it may waste some inputs or school resources in producing outputs. Rumberger (2008) argued that school resources, structural features of school and policies and practices of the school influence wastage. According to Kane (2004), other school-based factors leading to wastage in schools include teacher pupil conflicts, poor methods of teaching, excessive punishments; excessive homework, overcrowded schools, inaccessibility and costly school requirements.

Wastage in education describes various forms of failure to achieve educational objectives. UNESCO (1970) defines wastage to include drop outs, repetition, premature withdrawal from schools, non-employability of school leavers and non-usability of school learning. Educational wastage is an indication that student's achievement or performance is suffering. Economists see education as an industry, with capital invested in plant, and raw materials being processed into finished products. What is being wasted in education is human learning, school buildings, equipment and the labour of teachers. The cost of educational wastage is very expensive. If educational resources are wasted, educational objectives cannot be fully achieved. But, where efficient and effective utilization of resources exist, students without doubt enjoy excellent learning; excellent performance in their examinations; and better still, high levels of satisfaction among the parents, staff members and students. Consequently, there would be full students' enrolment without drop–outs, failure and or sorting of any kind. By implication, when the students graduate, they would be capable of generating ideas from what they have learnt and be qualified to fit functionally in the world of work. In other words, they would have acquired both physical and intellectual skills and values which would enable them to be self–reliant and useful members of the society; hence the future would be sustained. It may not be out of place therefore, to say that national development can be achieved only through quality education hinged on efficient utilization of educational resources and founded on reduced educational wastage (Nneka, no year).

The Hartog Committee of 1929 was the first to draw attention to the widespread prevalence of wastage and stagnation. "Wastage" was defined by the Committee to mean the premature withdrawal of children from school at any stage before the completion of the primary course", and "Stagnation" was defined to mean "the retention of the child in a period of more than one year". Ever since the recommendation of the Hartog Commission, this major problem of wastage and stagnation is still a great evil at all levels of education. The dropout rate is particularly high at lower classes but gradually decreases at higher classes. A global overview of educational wastage indicates that wastage is a real challenge that many

countries of the world have been trying to curb. In the United States of America, for instance, the high school dropout rate is alarming. In the 1940s fewer than half of American individuals aged 25-29 earned high school diplomas (Shannon & Bylsma, 2003). The educational system of Cameroon has equally suffered similar trends of educational wastage as observed by the researcher through high failure rates, drop outs and low performances at the general certificate of education (GCE).

Teaching according to Smith (2004) has a role to play in curbing wattage. He sees teaching as the process of carrying out activities that experience that can be effective in getting students to learn. He goes on to say that teaching is that which results in learning and learning is the responsibility of the teacher, therefore if students do not learn, it is the fault of the teacher. He capped his statements on teaching by stating that teaching is undertaking certain ethical tasks or activities, the intention of which is to induce learning.

Statement of the Problem

Education is the basis for development and empowerment for every nation. It plays a vital role in understanding and participating in day to day activities of today's world. It builds one's character and plays a significant role in transmitting one's culture, belief and values to others in the society. (Narayan & Reddy, 1979). The Cameroon government has invested heavily in education in an effort to realize the aims of education. The government has openedmore teacher training colleges and ensured the organization of regular in-service training programs at the regional and divisional levels all to update teachers and improve teaching. There have also been the introduction of the competency based approach (CBA) to enhance teaching. Some additional infrastructure, equipment and teachers are being provided to schools through the efforts of both government and Parents-Teachers Associations (PTA) to ensure success in schools.

Despite enormous investment made by the Cameroon government in education, the enterprise has been accused of various predicaments which include the widening of the gap between the rich and the poor due to school dropout rates, high rate of unemployment, reduced number of job creators and a high increase in the number of job seekers as observed by the researcher. Objectives of education are not fully being achieved as observed. Recent happenings in the secondary schools reveal that there seem to be a gap between what is expected and the actual output. The researcher noticed that there are high rates of repetition, stagnation, low transition rates in secondary schools and the presence of over aged students in examination classes (forms five and upper sixth). From the World Bank report (2014), secondary school completion rate in Cameroon stood at 45.60%, while statistics also hold that the transition into secondary school by 2015 was just 66.49% (UNESCO, 2015). Students still fail to complete secondary schools, leading to dropouts. The researcher also observed that there has been a considerable low rate of students' performance at the GCE Ordinary level examinations for the past five years. The average GCE performance for these years is below 40%, as revealed by the examination results booklets from the Cameroon GCE Board.

The effects of wastage in secondary schools can be very severe on the human, economic and material resources. All those students who repeat or drop out of school cause a huge public menace, given that they mostly turn to criminality, drug consumption and other societal ills. Dropouts who join the labour market mostly have low earning profiles. Most of the few students that complete school experience high rate of non-employability, and also non-usability of their learning in Cameroon, as they can be seen engaged in jobs that are not related to what they studied. Above all, we can see more job seekers than job creatorsin the cities and urban centers.

In the midst of the above worries, the researcher was therefore prompted to investigate the influence of teaching on educational wastage in secondary schools of the Littoral Region of Cameroon.

Objective of the Study

The objective of this study is to investigate the influence of teaching on educational wastage in English speaking secondary schools of the Littoral region of Cameroon.

Research Question

What is the influence of teaching on educational wastage in secondary schools of the Littoral Region of Cameroon?

Research Hypothesis

Ho: There is no significant relationship between teaching and educational wastage in secondary schools of the Littoral Region of Cameroon.

Ha: There is a significant relationship between teaching and educational wastage in secondary schools of the Littoral region of Cameroon.

REVIEW OF LITERATURE

Educational Wastage

Educational wastage implies the inefficient use of educational resources. Some of the noticeable signs of wastages include dropouts, repeaters, premature withdrawals, misguided types of education, non-employment of school leavers and even brain drain (Durosaro, 2012). According to Babalola, (2014), the term ‘wastage’ applied to education as an unfamiliar ring, and educationists may object to it as a depersonalizing of what is essentially an individual growth process. It comes from the language of economists and seems to liken education to industry, with capital invested in plant, and raw materials being processed into finished products. Repetition and dropout rates are the commonly used parameters to measure educational wastage (Deribe, Endale & Ashebir, 2015). According to them repeating a grade means utilizing more resources than allocated to a student and hindering the intake capacity of schools. Similarly, leaving a school (dropping) before completing a particular cycle/level of education is wastage in resources. According to them, wastage in education indicates

inefficiency of the educational system since an educational system is efficient when such system tries to reduce wastage to the barest minimum. Adigwe (1997) laments that the poor conditions of secondary schools, such as poor teaching, poor motivation of teachers, lack of facilities and equipment have culminated into inefficiency in the system with students dropping out and repeating classes.Akolo (1998) on the alarming rate of student failure in our secondary schools stressed that the root cause of failure in secondary schools stemmed from inadequately trained teachers and lack of needed instructional materials. This consequently contributed to the apparent poor students' academic performance and reduction of graduation rates in public secondary schools in Nigeria.

Hanushek (2013) explains that educational efficiency or internal efficiency is usually seen or measured in terms of pupil academic achievement, i.e. learning outcome. Oyetakin (2011) holds that wastage or leakage in the system are draining the limited financial and material resources that go into the system as inputs for transformation process. According to Parelekar (1939), the term "wastage" is used to denote the case where a child leaves the school without even acquiring a fairly stable literacy, especially given that the education of a child always involves the investment of money. If a child leaves the school without completing the primary course or if he fails in a class then the investment does not give the desired result. Money and human resources are wasted in this way. Repetition, stagnations, drop-outs. Non usability and non-employability are some main indicators of educational wastage. Samuel (2017) holds that if an individual fails in school or leaves, before obtaining the diploma or the degree, then the investment made does not give commensurate returns, as both finances as well as human resources are wasted.

Repetition as perceived by Musyimi (2011) means a year spent by pupil in the same grade and doing the same work as previous year. Musyimi deduced five major forms of repetition, depending on the source and reason of repetition. This decision may be initiated by the students themselves or by the school. This is voluntary and serves the students' best interest. He continues to explain that the second type of repetition reflects the belief that the student did not learn much the previous year and therefore ought to repeat the grade. It is most common in developing countries where attendance is poor due to poverty, illness and starvation. The third type of repetition is common in areas where the language used in school differs from the language that many students speak at home. Repeating early grade may enable their students to gain fully in the language of instruction. Forth type of repetition occurs at higher levels in countries that requires students to pass exams to qualify for secondary or post-secondary education. The fifth form is involuntary initiated by school rather than the student or their families. Grade repetition whether voluntary or forced, represents wastage of resources for society.

Nkinyangi (1982) argued that schooling is efficient if every student moves up a grade every year. Nkinyangi's study further notes that each student who repeats has the economic effect of increasing class size which means constructing more classes and employing more teachers. Ngau (1991) argued that pupils who repeat grades especially towards the end of a cycle believe that they will improve their chances of passing the examination for entry in the next level. However, this has never been proved. Repetition rate is very high at the developing

countries and especially in the sub-Sahara Africa (Eisenman, 1997). Neto and Honushek (1994) found out that repetition is frequent in rural areas. Drop-out means premature withdrawal of a child or students from school at any stage of education before completion of the prescribed courses. This implies that within an academic year, some student's dropout of schools for various reasons. The ultimate goal of every individual is to obtain employment. Well paid jobs require good education; hence, if a person is not educated and does not possess the degree, then he may experience problems in finding employment opportunities. Educational wastage has three components: failures, grade repetition and drop-outs. There are various forms through which it takes place, failure of the system to provide universal education, failure to recruit the students within the system, failure to retain students, incapability on the part of the system to set appropriate objectives and inefficiency in the achievement of objectives. Audrey (2009) notes that student who repeat a grade prior to high school have a markedly higher risk of dropping out of high school than those who are continuously promoted through school. Leaving school after completion of compulsory cycle without going on the succeeding cycle does not constitute drop out. Dropping out of school has various consequences as illustrated in the following studies. Studies conducted by Rumberger (1987) revealed that the major consequence of dropping out of school is low literacy and numeracy skills. He continued to state that school drop outs find it difficult to secure employment. The dropouts have fewer opportunities to obtain additional education and training needed to make one remain competitive in the job market. A study carried out by Levin (1972) on high school dropouts in the United States revealed several social consequences associated with dropping out of high school. These social consequences include: foregone national income; increased demand for social services such as welfare, medical assistance and unemployment assistance by the dropouts; increased crime; poorer levels of health; reduced political participation and reduced intergenerational mobility.

Non usability of knowledge and non-employability are all forms of educational wastage as described by Samuel (2017). According to him, individuals are required to experience many detrimental effects of educational wastage. These include unemployment, less income earnings, increase in criminal and violent acts, public dependency and deprived health conditions. Stagnation in education means staying in the same class for more than the stipulated period. A student who is required to spend more than a year in one class is regarded as a case of stagnation. Stagnation is also a major factor of wastage in elementary education (Parelekar, 1939). Parelekar (1939) sees failure as a form of poor performance or inability to pass an examination. He holds that when students fail they lose their confidence and want to discontinue their studies. Parents too want to withdraw their children from the school for the poor performance of their children at School. Parents therefore think it is better to put their children in some employment than to keep then in school.

Forms of Educational Wastage

Educational wastage occurs in the following forms: inability to provide universal education, inability to recruit children into the system, inability to retain students within the system, inability to set appropriate objectives and the inefficiency in the achievement of objectives (Brimer & Pauli, 1971).

The inability to provide universal education is one of the forms. The Declaration of the Rights of the Child of 1959 includes the child's right to education, and a country which is unable to make provision of educational opportunities for the entire child population is not acknowledging its duty and objectives. Children are the future citizens of the country and when they will receive good quality education, they would efficiently contribute towards the progression of the country. Education leads to development of human resources. This is not to say that all such countries are responsible. Many of them are economically unable to make such a provision, but to the extent that they cannot or are not able to receive any kind of assistance. In order to provide good quality education, the country needs resources.

Next form is the inability to recruit children into the system. The demand for education is normally greater as compared to supply. Lack of resources, materials, infrastructure, civic amenities, proper teaching-learning processes, instructional strategies and other facilities are the factors that cause inability to recruit students into the education system. The existence of legal prescription of the age at which children should begin school, together decrease the incidence of the second source of wastage at the first and second level. Yet such forms of wastage still need to be considered, above the age of compulsory education. It is one of the most important factors in making provision of additional and higher education. Recruitment into the voluntary sectors of an educational system depends upon ensuring that the pupils and their families recognize the objectives and the framework of education as compatible with their own goals.

Followed is the inability to retain students within the system also has an influence. The retaining capacity of the educational system in both its voluntary and its compulsory sectors depends upon external and internal factors. The social and economic conditions of the educational institutions are primarily responsible for retaining students. Good quality education, extra-curricular activities, kind and approachable teachers, proper infrastructure and facilities and amiable environmental conditions of the schools are the primary factors that contribute in retaining students. Absence of any of these factors may cause drop-out of students from schools. As a result, it causes educational wastage. Since it is within the capability of the system to reduce these sources of drop-out, they are suitably regarded as forms of wastage.
Nevertheless, in many countries, the number of available school places at successive levels of education decreases, and it would be inappropriate to assume that all nations intend to retain children, primarily recruited into the system throughout the total range of provision. However, it is logical to recognize the primary objective as being to retain all students, recruited into the system until the objectives have been adequately satisfied. An estimate of wastage should include an index of drop-out, which relates premature leaving to the number of children, who are recruited at the beginning of each cycle.

One form too is the inability to set appropriate objectives**.** In the present world, there are differences among nations in setting objectives for the entire education system and its components. In most cases, the strongest single influence in the determination of objectives arises from a traditional conception of what an educated person should be. The curriculum

content and processes, which have promoted this view of the educated man, over many decades and even over centuries still continues to have a considerable influence upon the concept of what education would make an attempt to achieve. Inability to achieve a balance between the demands of education in leading to operative growth and progression of the individuals, and the production of trained and skilled human resources needed by the economy. This characterizes the incompetence of the educational system. So far as the international comparisons are concerned, each nation must be responsible, for setting its own objectives, and for determining whether or not they have been achieved.

Lastly we have the inefficiency in the achievement of objectives. Every educational institution has certain goals and objectives. The goals of enhancement of the educational system, leading to operative growth and development of the students, making use of modern and innovative strategies and methods and making provision of necessary facilities and equipment are some of the common goals. In order to achieve these goals, it is vital for the individuals to be skilled, aware, competent and knowledgeable. They need to possess the traits of diligence, conscientiousness and resourcefulness to meet the desired goals and objectives. The individuals are required to work in collaboration and share with each other, ideas and suggestions. It is vital for them to create an amiable atmosphere within the school environment and implement truthfulness, honesty and ethics. Absence of any of these factors would cause inefficiency in the achievement of objectives.

Schools Based Factors of Educational Wastage

Rumberger (2008) argued that school resources, structural features of school and policies and practices of the school influence wastage. According to Kane (2004), other school-based factors leading to wastage in schools include teacher pupil conflicts, poor methods of teaching, excessive punishments; excessive homework, overcrowded schools, inaccessibility and costly school requirements. The most common school-based factors contributing to dropping out include; poor school performance, disruptive behaviours, poor attendance, negative attitudes toward school, and early school failure-particularly, repeating grades and corporal punishment (Muhammad & Muhammad, 2011). Although student and family characteristics account for most of the variability in dropout rates, about 20 percent can be attributed to four characteristics of schools: the composition of the student body, resources, structural features, and policies and practices (Rumberger, 2008). Research conducted by Rumberger (2008) shows that the odds of dropping out are lower in schools with more advantaged students, but the effects appear to be indirect, through the association with other school characteristics. Research does not show that school size has a consistent effect on dropout and graduation rates. Attending a Catholic high school improves the odds of graduating; yet studies have also found that Catholic and other private schools lose as many students as public schools because students attending private schools typically transfer to public schools instead of dropping out. Relatively few studies found significant effects of school resources on dropout and graduation rates, at least in high school. But there is strong evidence that small classes improve high school graduation rates (Rumberger, 2008).

The following components are identified by Wanjiku (2014) as school based factors: Student composition, availability of resources and equipment within the schools, School structure, School policies and practices, Discriminatory treatment, Sexual harassment and Limited opportunities for the students.

Student composition is influenced by student's characteristics at both the individual and social levels. The social composition of the students can influence student achievement, apart from the effect of student's characteristics at the individual level. The social composition of the schools predicts the school drop-out rates even after controlling for the individual effects of the background features of the students.

The availability of resources and equipment within the schools contributes a major part in influencing the drop-out rate. It is apparent that to make the teaching and learning methods operative, it is essential to make proper availability of resources and materials, so they can be implemented in an appropriate manner. The higher the quality of the teachers, the lower is the drop-out rate.

School structure is a broad term that does not only include the resources or infrastructure, but also the materials, equipment, civic amenities and other facilities. If the school structure contains all the necessary materials and equipment, then it would lead to enrichment of learning. On the other hand, unavailability of materials and equipment would impose many unfavourable effects upon the learning of students and overall functioning of schools.

School policies and practices are very important within schools. It is necessary to formulate certain policies and practices in our schools. They should be aimed at inculcating the traits of discipline, righteousness, honesty, morality and ethics among the individuals. Practices such as, proper time management, proper conduct, evaluation procedures, rules regarding improvement in the performance of the students, organization of competitions and workshops, proper teaching-learning processes and effective communication among the members of the schools are the factors contributing to alleviation of educational wastage.

Discriminatory treatment is also common in schools. The teachers in some cases do discriminate against students. These include, providing more opportunities of progression and leadership to some and not to others. The teachers may depict partiality to some students in teaching-learning methods, asking questions, communication processes or in terms of grading. When any sort of discriminatory treatment is observed, then students do not feel comfortable in learning and may discontinue education. Discriminatory treatment imposes detrimental effects upon the educational attainment among students.

Sexual harassment is a problem that has been common in educational institutions. The girl students are the ones, who have experienced this act in most cases. The teachers as well as the fellow students have been responsible for this offence. This is a crime that is prevailing in educational institutions at all levels. The girls, who have been subjected to this crime have developed vulnerability and weakness, which enable them to drop out of school.

Limited opportunities for the students are also accused as a likely cause for students to discontinue their education. One of the strongest connections that have led to early school

drop-out has been the lack of academic success. When they experience problems in meeting the academic demands of the schools, they tend to leave. The lack of opportunities for success can be viewed as an imbalance between the academic demands of the schools and the resources required in meeting those demands.

Socio-Cultural Factors of Educational Wastage

Wanjiku (2014) outlines a number of socio-cultural determinants which include child labour, child abuse, family beliefs, age/adulthood, early marriage, family economic status, educational level of parents and disunity of parents.

Child labour has a prime influence on students' education. The children belonging to deprived, marginalized and socio-economically backward sections of the society usually get engaged into child labour practices. Child labour is referred to as a practice where individuals who are below 18 years of age get engaged into any form of work that involves manual labour. In India, children usually get into employment in the agricultural sector, plantations, farming, mining, industries, factories, domestic households, restaurants and so forth. In these areas, they are required to work long hours in return for less pay. This practice has become an impediment within the course of pursuance of education. Hence, children in most cases have to drop out of school, when engaged in child labour. The work timings and school timings usually at times clash and children are unable to take out time for studying.

Child abuse is stated as one of the most heinous crimes. In the present world, children who are even below ten years of age are experiencing criminal and violent acts. Experiencing these acts and any kinds of mistreatments, will not only impede their psychological approach, but also make them apprehensive in communicating with the outside world. The various forms of abuse and mistreatment that children experience include verbal abuse, physical abuse, rape, sexual harassment and murder. Child abuse enables the children to drop out of schools and make them confined within their homes, hence causing educational wastage.

Family beliefs and values are seen to have plagued the education of many children. The families residing in rural areas usually possess different viewpoints regarding the education of the girls and boys. When they have limited resources, they believe in getting their sons educated and feel that education would provide good employment opportunities, which in turn would enhance their reputation and generate wealth. On the other hand, they possess the viewpoints that girls would have to eventually get married and go to other households, hence, they should be taught how to perform the household responsibilities. They claim that education is not meant for girls, since to them, they would not be able to obtain the opportunities to utilize their education. Boys are considered superior to the girls and their parents work towards making provision of education to them.

Age, marriage and notions of adulthood all have a role to play. There is no age limit for obtaining education. Individuals who are adults can equally attain education by getting enrolled in adult education and training centres. After one has completed education, then factors such as, marriage, household responsibilities, child development, needs and requirements of the elderly family members and other domestic chores are some of the

factors that occupy the individuals. Due to engagement in these areas, they are unable to make effective use of their educational skills. In educational institutions, these factors also lead to an increase in the rate of absenteeism. Students are unable to attend classes, remain absent and as a result experience unfavourable effects in terms of their academic achievement.

Early marriage is one of the factors that is of utmost significance in causing educational wastage. In the past, within the country, there has been prevalence of child marriage, that is, girls would get married before they have attained the age of 18 and boys would get married, before they have attained the age of 21. Even before marriage, if individuals are attending schools, they usually have to discontinue their education for this purpose. Marriage imposes numerous responsibilities upon individuals, especially girls and they are deprived of their childhood activities and education. Boys may continue their education after marriage, but girls usually have to discontinue their education and get engaged in the performance of household responsibilities. They are unable to make use of their education in any way, after marriage.

Family economic status is considered important in order to acquire education and make effective use of it. When individuals possess the resources, they are even able to send their children to other regions and countries to enable them pursue higher education. On the other hand, when they experience scarcity of resources, then they are unable to send their children to even schools that are located nearby. When the economic status of the family is in a deprived state, then parents encourage their children from an early age to get engaged in employment opportunities and not pursue any kind of education. These individuals are able to pursue education, provided when they receive some kind of financial assistance. In India, education has been given much significance and under the Right to Education Act (2009), children up to fourteen years of age would be provided with free education.

The educational level of the parents is also one of the important factors in contributing to the attainment of education of the children. When the parents are educated, they motivate and encourage their children to enhance their educational skills. On the other hand, if they are not educated, then in some cases, they encourage their children to get engaged in employment opportunities to sustain their living conditions or train them, especially girls in terms of household responsibilities. On the other hand, there are parents, who are uneducated, but encourage and support education of their children. Educated parents will provide support and assistance to their children in making effective use of their education and guide them towards the right direction.

Disunity of the parents due to death or divorce has been on the rise. When parents are single, they have to take care of numerous aspects. When they are financially strong, they may get their children enrolled in reputed educational institutions. Whereas, when they are not financially strong, they may not provide education in reputed educational institutions. Individuals prefer to live with their single parents and assist them by taking up jobs. In this way, they may either discontinue their education or may not get enrolled in educational institutions to pursue higher education. This point highlights that disunity of the parents due

to death or divorce may make them single and in turn, their children get compelled to assist them by giving up their hopes and aspirations. Finances in this case contribute an imperative part in enabling the individuals to acquire education and utilise it appropriately (Kebede, Demissie & Estifanos, 2015).

Student's Personal Factors of Educational Wastage

Students can also be the causes of their own wastage in education through the following ways (Wanjiku, 2014) namely: peer group influence, pregnancy, availability of materials, lack of interest and lack of civic amenities/facilities.

Peer group influence and attitudes towards schools stand out very prominent. Peer group influence contributes an important part in increasing school drop-outs among adolescents. It is well acknowledged that the extent to which an adolescent thrives in meeting the expectations of the schools have an important and direct bearing upon his status within the peer group. The peer group of an adolescent constitutes a world of its own with its values, norms, customs, traditions, manners, and even its own language. Peers can apply unexpected influence over each other, particularly with regards to school drop-out and attitudes of the individuals towards school. Individuals are required to relate to the peers for they are dependent upon their attitudes, feelings and expectations in order to help them create their own views of the world.

Pregnancy is one of the factors that does not only lead to a high rate of absenteeism, but women experience problems in getting engaged into certain tasks at this stage. The problem of school pregnancies is primarily related to rape and sexual harassment. There have been reported cases of girls belonging to 14 to 18 years of age, dropping out of school every year due to pregnancy and this sometimes leads to early marriages. Pregnant girls are viewed as adults and they are not meant to be in schools. Such students end up being frustrated and depressed. If they don't conform or if they do, they may be victims of early pregnancy and tend to withdraw from school prematurely.

Availability of materials and equipment is a very important factor. In order to facilitate acquisition of education, students need materials and equipment. These include textbooks, stationary items, uniforms, school bags, technology, computers, internet, proper heating and cooling equipment within the classroom in accordance to the weather conditions, clean drinking water, restrooms and others. When parents are able to provide the educational materials to their children, it leads to facilitation of learning. On the other hand, when parents cannot afford to provide the required materials and equipment, then students may experience unfavourable effects in improving their learning.

Lack of interest is common among some students. When enrolled in educational institutions, it is vital for the individuals to develop interest and enthusiasm towards studies. It is a fact that teachers have to implement proper teaching-learning processes and instructional strategies in order to make learning effective. But to improve their learning, it is up to the students to dedicate themselves wholeheartedly towards acquisition of education and be regular and attentive. At all levels of education, some students depict lack of interest in

learning. They either are unable to understand the academic concepts, are unable to communicate with the teachers to provide solutions to their problems, they get engaged into other tasks and activities and do not pay attention to studies or undergo family issues. Lack of interest and enthusiasm enable them to waste their learning and not make operative use of it.

Lack of civic amenities/facilities and suitable place to study can seriously impact a child's education. The students residing in rural and remote areas usually experience scarcity of resources. In some areas, there is shortage of electricity, water supply, and households reside in one room apartments, where they are required to carry out all tasks and functions. In urban areas too, families reside in slums and one room apartments, where there are lack of civic amenities and facilities. Students belonging to these families usually experience problems in finding a suitable place where they can appropriately concentrate on their studies. Hence, due to these problems, educational outcomes obtained in some cases are undesirable.

Consequences of Educational Wastage

Goodland and Anderson (1987) opine that the economic consequences of wastage in secondary schools is severe Advances in technology have fuelled the demand for a highly skilled labour force, hence, transforming high school education into a minimum entry into the labour market. Further, secondary school completion has become a basic prerequisite for higher education, meaning that a dropout who joins the labour market will have low earning profiles because they are likely to work at unskilled jobs or at low paying service occupations which offer little opportunity for upward mobility. Dropping out also severely impairs a young person's job prospects and earning potentials and in turn causes other secondary indirect problems such as low self-esteem and reliance on public assistance.

Teaching

Various definitions have been given to teaching. According to Nilsen and Albertalli (2002), teaching in its broadest sense is the process whereby a teacher guides a learner or a group of learners to a higher level of knowledge or skills. Desforges (1995) defines teaching as the management of pupils' experience, largely in classrooms with the deliberate intention of promoting their learning.

The following scholars have also defined teaching in various ways. Schlechty (2004) defines teaching as an art of inducing students to behave in ways that are assumed to lead to learning, including an attempt to induce students to so behave. What Schlechty meant by teaching being 'an art' is that the teacher must create situations to facilitate learning and then motivate learners to have interest in what is being transmitted to them. Melby (1994) also states that teaching is not merely dispensing subject or lesson-having, but an art which involves the student in the teaching-learning process where the student is given the chance to participate fully in the process – that the teacher accepts each pupil and has a favourable attitude towards individual differences. It is a relationship in which the teacher eschews sarcastic statements, ridicule and fault-finding. Thring (2001) says pouring out knowledge is not teaching. Hearing lessons is not teaching …… teaching is getting at the heart and mind so that the learner

values learning and to believe that learning is possible in his/her own case. Frimpong (1990) define teaching as the process whereby a teacher imparts knowledge, skills, attitudes and values to a learner or group of learners in a way that respects the intellectual integrity and capacity of the learners with the aim of changing the behaviour of the learner(s)'. From this definition, one can say that teaching involves not only how information gets from the teacher to the learner but also how the learner (i) uses it, (ii) interacts with it, (iii) receives guidance (iv) receives feedback. Confucius cited in Knott and Mutunga (1993 p. 158) said "in his teaching, the wise man guides his students but does not pull them along; he urges them to go forward and does not suppress them; he opens the way but does not take them to the place ….If his students are encouraged to think for themselves, we may call the man a good teacher".

From the above definitions on teaching, one can surmise that there are two main types of institutionalized teaching – these are (a) formal teaching in which the teacher directs the teaching learning process with minimal student participation and (b) informal teaching in which the teacher serves as a guide, facilitator, counselor or motivator and student participation is very high. One can therefore infer that teaching and learning are intricately linked together like Siamese twins. That the major goal of teaching is for the teacher to ensure that students/pupils learn what has been taught. It therefore mandates the teacher to teach in such a way as to promote learning. Against this backdrop, teachers should note that the purpose of teaching is not the time for them to air their knowledge but to help children to learn (Colin, 1969).

Principles of Teaching

The principle of teaching is a basic idea or rule that explains how teaching is done or conducted. In this section, the following teaching principles given by Tamakloe (2005) are presented. These include the teacher must: time the various stages of a lesson so that each stage receives the desired attention without exceeding the time limit of the lesson; detect when his/her pupils/students are getting bored or restless so that s/he can vary his/her approach or the stimulus; use the experiences of his/her pupils/students to initiate as well as generate further learning; make judicious use of available resources in the teaching-learning process; present what s/he teaches in an interesting way; write orderly layout of summaries on the chalk/whiteboard; express him/herself and illustrate his/her points clearly in the lesson particularly in his/her explanation of content; design suitable and adequate quantity of exercises and assignments for his/her pupils, and insist on prompt tackling and submission; use good or correct language in the teaching process; correct and direct his/her pupils/students without making them feel embarrassed or frustrated; learning situations that will serve as challenges to his/her pupils/students; select appropriate learning experiences of his/her pupils/students; employ a variety of teaching methods and techniques within a lesson; generate divergent thinking and creativity in his/her pupils/students; be able to achieve the objectives of his/her lessons; use praise to urge his/her pupils to become eager to participate more in a lesson; study and become aware of the need of the individual pupils/students in his/her class; be able to assist his pupils/students to assess their own performances; maintain a

reasonable balance between pupil-activity and teacher-activity as dictated by the nature of the lesson.

Main Phases in Teaching

Although what the teacher has to teach is contained in the teaching syllabus, he/she constantly makes decisions with regard to students' learning and appropriate teaching strategies and methods to employ. Among the decisions that a teacher has to take on a daily basis are how to plan for his/her lessons which cover issues such as what to teach, how to teach what has been selected and how to evaluate what has been taught. These questions are concerned with three basic teaching functions: (i) Planning (Pre-Teaching) phase; (ii) Implementation (Actual Teaching) phase and (iii) Evaluation (Post-Teaching) phase.

In the Planning (Pre-teaching) phase the decision on how to plan the lesson should be taken long time in advance of the lesson. This is firstly, to allow the teacher enough time to read around the topic to be taught, especially where the teacher's command over the subject/topic is weak, Secondly, to permit the collection of teaching-learning resources and the preparation of other teaching learning resources which could not be acquired commercially (Colin, 1969). This phase requires the teacher to make decisions about the students' needs, the most appropriate goals and objectives to help meet these needs, the motivation necessary to attain their goals and objectives and the most appropriate strategies for the attainment of those goals and objectives. The planning decisions cover the students' progress; the availability of resources; equipment and materials; the time requirements of particular activities (Perrott, 1982}. It is during this phase that the teacher writes up his/her lesson plan. The Implementation (Actual teaching) phase requires the teacher to implement the decisions made at the planning stage, especially those related to teaching methods, strategies and learning activities. The implementation function occurs when the teacher is interacting with the students. In this phase, the teacher is expected `to exhibit teaching skills such as presenting, explaining, listening, introducing, demonstrating, eliciting responses and achieving closure. The implementation phase has segments such as prime (getting students into a state of readiness to learn), presentation, summary, consolidation and checking learning through class exercise. The Evaluation (Post-teaching) phase requires decisions about the suitability of objectives of the lesson and the teaching strategies linked to them, and eventually whether or not the students are achieving what the teacher intended. Teaching skills which support this function include specifying the learning objectives to be evaluated; describing the information needed to make such an evaluation; obtaining, recording, and analyzing that information and making judgments. In other words, you examine carefully the results of your teaching and decide how well you handled each teaching function. On the basis of this feedback you decide on whether or not to make new plans or try different implementation strategies. In this way, your decision-making will become more accurate (Perrott, 1982).

Requirements for Teaching

Whilst all managers have something in common, specific management requires specific knowledge. Teachers as managers need a special body of knowledge and special skills too.

The nature of the various subject areas as formal academic disciplines, the objectives for teaching them, the competencies they demand for their teaching and learning and the varied methods and materials required for teaching/learning them, makes it imperative for every teacher to possess a repertoire of knowledge, qualities, attitudes and values. There are certain characteristics given by Shulman (1987) that every professionally-trained teacher should possess. These include content knowledge, general pedagogical knowledge, curriculum knowledge, knowledge of learners and their characteristics, knowledge of educational context/human relations, pedagogical content knowledge/teacher craft knowledge and knowledge of educational ends.

Content knowledge can be described as the subject matter, ideas, skills or substance of what is taught. It covers issues such as The teacher being familiar with the most recent knowledge in his/her discipline, history and philosophy of teaching the subject (various schools of thought), how the knowledge base of the subject informs or is informed by other disciplines. The teacher must have knowledge and understanding of the different fields/aspects in his/her subject. That is, s/he must have a broad view of the subject in all its aspects, a firm understanding of its concepts, principles, values, theories, generalizations, etc. and have an unending enthusiasm for its study. His/her content knowledge should be in-depth and must know the probable sources of knowledge in his/her subject – textbooks, journals, national dailies, unpublished materials, etc. from where s/he should tap his/her content. Colin (1969) states that it is necessary for the teacher to read and study far beyond the level required for his/her actual lessons. For this reason, newly trained teachers must continue to study even though they have gained their teaching qualifications. The teacher should have both practical and liberal knowledge of his subject, with the latter making it possible for students to have an intelligent grasp of the salient features of world affairs. Lastly, the reason why the teacher should read broadly is that the world has now become a global village due to the modern means of technology, transport and communication. This has brought world events within the scope and experience of more people each year. Students who have access to these modern means of communication are likely to ask in class questions on issues they don't understand. The well informed teacher should be in a position to deal with such questions expertly. In summary, there is no substitute for a sound knowledge of the subject matter and no teacher can be excused for trying to hide a deficiency of knowledge behind a façade of teaching techniques, for if your knowledge is doubtful, your teaching techniques will invariably be doubtful too.

General Pedagogical Knowledge is made up of the broad principles, approaches/strategies, methods and techniques for conveying content to learners. It covers issues such as the teacher should: Not teach content with just one good teaching method, but should constantly seek new ways of approach that are likely to interest students and at the same time be more effective in imparting knowledge. Never consider having reached the ultimate in teaching; teachers should always keep their minds and attitudes flexible enough to consider new methods and if these methods are good, attempts should be made to incorporate them in their schemes of work; this is because students not only accept but welcome new methods of approach which bring about receptive learning. Train students to observe things, record and

correlate both primary and secondary data (e.g. study of maps, pictures and books). Teach students to learn to do things for themselves so as to be better equipped to carry across into everyday life the implications of what they learn at school; for example, a teacher teaching a topic like "the tropical grassland" in a savannah environment in a geography lesson should become the supplier of raw materials from which the students extract and interpret relevant details. Try as much as possible to break away from the teaching-talking and talking-teaching idea which lies behind much of the thinking of some teachers today.

Curriculum Knowledge is also vital. It is the information on various materials and programmes in the teacher's subject area which serve as "tools of the trade" for the teacher. This information includes the various levels at which his/her subject operates. It covers three levels (a) largest level which in the case of a subject like geography may be referred to as the social sciences (i.e. broad field curricular). Other types of curricular which belong to this level include, core curricular, completely undifferentiated curricular and subject specific curricular; (b) intermediate level that includes courses organized as segments, e.g. Economics 1, Economics 2, etc.; (c) lowest level which includes issues such as the various units, topics, lessons taught in a subject area. In addition to the above, the teacher should know the recommended textbooks, teachers' manuals, head teachers' handbooks, etc. He/she should know the materials required for teaching particular lessons; know the relevance of teaching certain topics. The teacher should equally know the following: Organizing elements – these are the knowledge (facts, concepts and principles), skills (cognitive, affective & expressive), values (socio-cultural, intellectual, moral, etc), attitude etc. which make up the content and the learning experiences to be taught. These serve as threads in the organization of an instructional programme or course/subject. Organizing principles – these are the standards by which the organizing elements are woven together to bring about effective teaching and learning. Examples include maxims of logical teaching methods such as teaching from the known to the unknown, from simple to complex, chronological arrangement of facts, demanding prerequisite learning, increasing breadth of application, increasing range of activities, use of description followed by analysis, forming a general conclusion from specific cases or examples, using specific examples or cases to form a generalization, stating objectives of study, repetition, application of facts, etc. Organizing centres – these are the topics, problems, units of work or resource units which are used to combine the content and methods of teaching in the discipline with selected learning experiences in order to achieve the intended learning outcomes. Organizing structures – they are the structural elements around which the learning experiences are organized.

Knowledge of Learners and Their Characteristics is information on the physiological, social, demographic and mental/psychological makeup of the learners which serve as one of the key determinants of successful teaching and learning. It demands that teachers should: Possess more than adequate knowledge of their students, their characteristics (personality traits), learning styles and habits, level of conceptualization, levels of motivation (i.e. their reasons for pursuing the subject/course), degree of interaction amongst themselves in both learning and non-learning environments. Know the principles/theories of learning and human growth (e.g. Piaget, Thorndike, Skinner, Brunner, etc.) which correspond with learners' level of

development or maturity or age – pre-conceptual, enactive representation, iconic representation, symbolic representation and formal operations stages. Know their students' skills, abilities, attitudes, knowledge, interests, individual differences in learning, etc. Consider the various levels and types of motivation their students bring into the classroom, that is whether the programme relevant to their interests, career aspirations, etc? The teacher should also know the demographic information on their students such as age range, sex ratio, number in class, etc.

Knowledge of Educational Context/Human Relations is information on issues such as the workings of a group of learners or the classroom, school organization/governance, peculiarities of local communities and cultures, etc. which impinge on the teaching-learning process. It demands that: The teachers should know the culture and organization of their schools, the community and the cultural patterns of the society in which the school is located. All these influence to a great extent, the teacher's relations with his/her students, colleagues, school administrators and external school officials. As regards relationship with parents, the teacher can report to parents on their children's academic progress, hold parents' conferences and enlist the assistance of parents to help with some school project and encourage them to supervise their children's home work. When this is done on a regular basis, it strengthens the relationship between the teacher and parents and makes both teacher and parent partners in the grooming of the children (Callaghan, 1966). The teacher should be very effective in his/her working environment both in school and out of school. S/he should on first appointment acquaint him/herself with the various context in which s/he is required to work – his/her students, fellow teachers, school authorities, nonteaching staff, parents, educational authorities, etc. The teacher should know the factors which bring about a productive environment for teaching and learning – these factors include discipline and order; conventions and routines in the school; his/her responsibilities as a teacher; intellectual, moral and spiritual values of the school; the schools' organogram (i.e. the organizational chart of the school showing the various administrative positions and their corresponding job descriptions, etc).

Pedagogical Content Knowledge/Teacher Craft Knowledge is the special mix of content and pedagogy which is unique to teaching. It is the teacher's special form of professional understanding and how he/she blends content and pedagogy to teach particular topics or problems consistent with students' interest and abilities. Teachers who possess teacher craft knowledge are those who: Foster the understanding of a particular concept, principle or theory by having knowledge of the ways of transforming the concept for students. Have knowledge of the ways of transforming the content for the purposes of teaching. In the words of Dewey (1956), teachers must 'psychologize' the subject matter. In order to transform or 'psychologize' the subject matter, teachers must have a knowledge of the subject matter that includes a personal understanding of the content as well as knowledge of ways to communicate that understanding to foster the development of subject matter knowledge in the minds of students. Are able to blend content and pedagogy into an understanding of how particular aspects of subject matter (e.g. concepts, principles, theories, etc) are organized, adapted and represented for instruction. Are able to transform subject matter into teaching

using different ways to represent it and make it accessible to learners. S/he knows what teaching approaches fit the content, and likewise, knows how elements of the content can be arranged for better teaching. Have knowledge of what students bring to the learning situation, knowledge that might be either facilitative or dysfunctional for the particular learning task at hand. This knowledge of students includes their strategies, prior conceptions; misconceptions students are likely to have about a particular domain and potential misapplication of prior knowledge (Shulman, 1987).

Knowledge of Educational Ends provides information on cultural, philosophical and ideological issues which determine the general direction of the education system and the type of curricular that a nation should have. It makes the following demands on the professional teacher: This trait presupposes that if an educational programme is to be planned and if efforts for continued improvement are to be made, it is very necessary for the teacher to have some conception of the educational goals being aimed at. These goals or ends become the criteria by which materials/resources are selected, content outlined, instructional procedures are developed and tests and exams are prepared. These goals are not simply matters of personal preference of individual teachers or groups, but are ends that are desired by the school staff. The teacher must have knowledge of the philosophy of education in order to come out with realistic educational objectives/goals. The teacher should have knowledge of the various schools of thought with regard to educational goals such as the progressives, the essentialists, the subject specialists, child psychologists, etc. The progressive emphasizes the importance of studying the child to find out what purposes he/she has in mind – information on this is the basis for selecting educational goals. The essentialist on the other hand is impressed by the large body of knowledge collected over many thousands of years and emphasizes this as the primary source for deriving educational objectives. The essentialist views objectives as essentially the basic learning selected from the vast cultural heritage of the past.

Role of the Teacher

Generally, the role of the teacher as seen by Sequeira (2012)can be categorized into the Traditional role which is teacher centered and the Modern role that is student centered with the teacher being a facilitator. There has been a change from the Traditional role to the Modern role in the present context. The learning increases when the teacher builds on the previous experience of the student. However, an individual's learning differs from one another and each individual learns at his or her own pace. Effective learning is to a great extent based on experiences. Direct experiences are student centered and participation in problem solving. While in indirect experience, the contents are carefully designed and organized by teacher.

Traditional versus Modern role

Traditionally the role of the teacher has been as a purveyor of information: the teacher was the fount of all knowledge. This suggests a picture of students sitting in rows in front of the teacher who is talking and passing information to students with the aid of a blackboard, while

the students either listen passively or, take their own notes if the teacher is lucky. This, of course, is not true anymore. The modern teacher is a facilitator: a person who assists students to learn for themselves. Instead of having students sitting in rows, they are likely to be in groups, all doing something different; some doing practical tasks, some writing, some not even in the room but in another part of the building using specialist equipment or looking up something in the library. All of the students might well be at different stages in their learning and in consequence, the learning is individualized to suit individual requirements and abilities.

This change from the traditional model is the result of a number of factors. First, it is recognized that adults, unlike small children, have a wealth of experience and are able to plan their learning quite efficiently. Secondly, not all individuals learn in the same manner, so that if a teacher talks to students some might benefit, but others might not. Thirdly, everyone learns at their own pace and not necessarily at the pace set by the teacher. Hence, the individualizing of learning has defined advantages (Sequeira, 2012).

Research into the ways that people learn has not provided teachers with any specific answers. If it had, all teachers would be using the same techniques. However, researchers have identified that learning is generally more effective if it is based on experiences; either direct experiences or experiences that have been read about. Of the two types of experiences, the former is more likely to be effective than the latter. Thus concepts that are able to be practiced or seen are more likely to be learnt. To apply this in a practical situation in secondary education and training, learning is more likely to be effective when it is related to and conducted in the knowledge of a student's (work) experience. Teachers need at this stage, to consider how we as teachers might best provide the experiences so as to make the learning as easy and quick as possible. They might consider two possible approaches to the design of a teaching programme.

A programme where the content is carefully derived from an analysis of the student's personal, social and/or vocational needs and which is implemented by you in such a controlled and organized manner that the student is almost certain to learn, and is aware when the learning has taken place. By this method motivation is generated by immediate success and the avoidance of failure. Unfortunately this rarely takes place because it has a fundamental drawback. Apart from the requirement for the students to place themselves in the hands of the teacher and thus tend to develop a relationship of dependency, it confirms to them that learning is a process which is organized by someone who knows better. It does not help students to learn on their own.

The other approach starts from the experience of the student, experience that has taken place as part of life or which has been organized as part of the programme. It then depends upon the student identifying and accepting a need to learn. Such an approach has been described as 'problem solving', 'student-centered learning', or 'participative learning'. The problem with this approach is to ensure that important areas of learning are not omitted and that the 'right' balance is struck between these areas, and also that each area is learned as effectively as possible (Sequeira, 2012).

Theoretical Review

The Theory of Gagne's Nine Events of Instruction (1985)

Gagne (1985), created a nine-step process referred to as The Events of Instruction. The events of instruction are related to and support the internal processes of learning. Gagne sees teaching as the activation of transformation processes, and that the goal of instruction should therefore be to facilitate this activation through a nine-step process.

These Nine Events of Instruction are: Gain attention, Inform learners of the objectives. Stimulate recall of prior learning, Present stimulus material, Provide learners with guidance, Elicit performance, Provide feedback, Assess performance and Enhance retention and transfer.

The following is a brief list of examples of how Gagne's Nine Events of Instruction model can be applied in everyday classes.

Step 1: Arouse Students' Attention

Students won't be ready for learning if instructors don't have their attention. This step is to obtain their attention so that they will be curious and want to know what's next. Use of pictures, videos, case studies, news, storytelling, polls, or other ice breaking activities will quickly get students to focus their attention on the content.

Step 2: Inform Students of the Lesson Objectives

Students want to know what they are going to learn, what they will be able to perform at the end of the lesson, and how they will be able to use the knowledge or skills in the future. Telling students the lesson objectives also help them grab the most important things and have them focus their efforts on your lesson.

Step 3: Relate Prior Knowledge to the Current Learning Materials

Students learn best if new knowledge is placed into a context that they are already familiar with. This step allows students to learn new information by retrieving their prior knowledge. To help students recall prior knowledge, ask students about the subjects or activities from previous classes, or have them share their own content related experiences, or have students discuss the connections between acquired knowledge and the current topics.

Step 4: Present the Content

Make sure to "chunk" the content into many small manageable pieces so to avoid overwhelming students.

Keep it interactive. It's suggested that instructors use a variety of teaching approaches to interact with their students, such as short lectures, group discussions, case studies, or roleplaying.

Step 5: Guide Students to Perform

Unlike the previous step (presenting the content), this step includes helping students understand presented knowledge as well as later applying the learned knowledge or skill. To effectively guide students, instructors can give examples, model the process, give hints and prompts, use hands-on activities, or provide criteria/rubrics.

Step 6: Let Students Practice Newly Presented Knowledge/Concepts

Students learn best by doing things. This step allows students to practice the new knowledge or skills. At this point, students are expected to apply newly learned knowledge by themselves with a little guidance. This might include having students work on real-life cases in groups, having hands-on lab practices, or asking students to elaborate their own understandings of the learning content.

Step 7: Provide Feedback to Students

Provide timely and detailed feedback to students on their performance. It's not enough for only telling them "Good job" or "You are not right." Instead, tell them why they are right, why they are wrong and what must be improved. Use of rubrics helps students understand feedback better, if needed.

Step 8: Assess Learning Outcome

This step allows instructors to see whether or not their students achieve the learning objective as well as allow students to see what content areas they have not mastered. Instructors can give students online or paper-based quizzes, have them do presentations, give them individual/ group projects, or have them demonstrate their knowledge and skills in a laboratory exercise.

Step 9: Enhance Retention and Transfer of Learning

This step assists students in retaining newly learned knowledge and applying it in a new context. Highlighting and reviewing important knowledge or concepts in real-life scenarios will help students transfer acquired knowledge. To help students retain and transfer the knowledge, have students discuss the potential applications in the workplaces or give enough opportunities for students to practice the knowledge during or after class. These nine stages are summarized in figure 3 below.

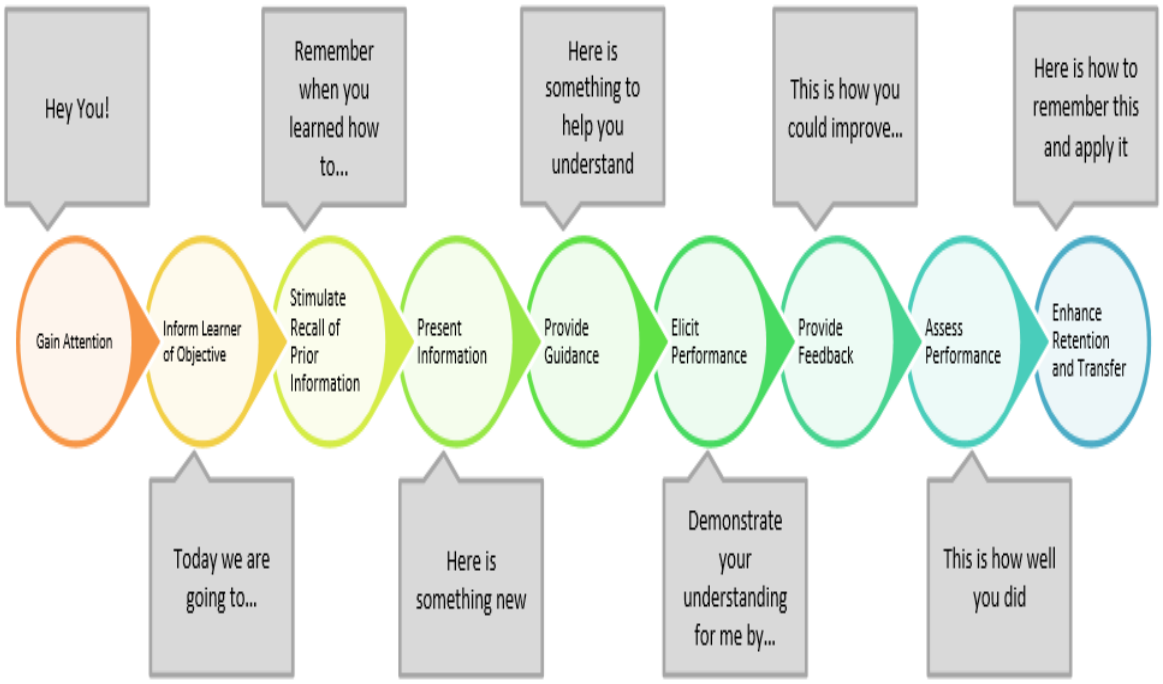

Figure 3: Gagne's Nine Events of Instruction

Source: Valparaiso Institute for Teaching and Learning (VITAL) Jen Gregory, Director of Instructional Design.

This means that teaching involves a series of processes/stages, which should be systematically followed when delivering instruction. Therefore during teaching, the content should be systematically presented to learners. Teachers by this theory are expected to properly plan their lessons, determine teaching methods and ensure the availability of teaching-learning materials for smooth and systematic presentation of content to facilitate learning. It is also evident from this theory that as teaching experience increases, the teachers develop more mastery of the nine stages prescribed by the theory to make their teaching better.

RESEARCH METHODOLOGY

Research Design

This study made useof the mixed research methodology, involving both quantitative and qualitative research methods. The researcher used the Explanatory sequential design. Quantitative data were first collected using a questionnaire and analyzed with more emphasis, then corroboratedand backed with the qualitative findings obtained through interviews. In view of this mixed methodology therefore, the study made use of a survey, interview and focus group discussion (FGD).

Area of Study

Thearea of the study was the Littoral Region of Cameroon, The Republic of Cameroon is found between latitudes 20 North to 140 North of the equator and latitudes 80 East to 170 East of the Greenwich meridian. It is bound to the North by The Republic of Chad, to the

West by the Federal Republic of Nigeria, to the East by the Central African Republic and to the South by Equatorial Guinea, Congo and the Atlantic Ocean. The two official languages are English and French. Cameroon is often referred to as "Africa in miniature" based on its geological, environmental and cultural diversity.The country is made up of ten regions.The Littoral Region is a coastal region with a surface area of 20,248km2 and an estimated population of 3,803,138 inhabitants (2013). It has four administrative divisions namely: Moungo, Nkam, Sanaga-Maritime and Wouri which are also broken down into sub-divisions. The Region has many ethnic groups, including immigrants from other regions and different countries like Nigeria, Chad, Mali and China.The capital of the Littoral region is Douala, the most populated city (2.446.945 inhabitants) as of 2017, and the economic capital of Cameroon.

Population of the Study

The population of this study was made up of all the students, teachers, vice principals and Heads of Department of English-speaking secondary schools of the Littoral Region of Cameroon.The studytargetedtwelve English-speaking secondary schools of the Littoral Region of Cameroon. The accessible (sampled) population was composed of all lower sixth students, teachers, vice principals and Heads of Department of the twelve selected secondary schools of the Littoral Region of Cameroon. These selected schools were made up of four public, four denominational and four lay private secondary schools. A total sample of 568 participants was used, distributed as follows: 412 lower sixth students, 112 teachers, 12 vice principals and 32 Heads of Departments.

Sampling Technique

The Vice principals were selected using the purposive sampling technique for schools that had only one vice principal and the random sampling technique, for schools with more than one vice principals. Heads of department were selected through the purposive sampling technique as it allowed the researcher to balance the number of participants from the Arts and Science departments who took part in the focus group discussion The stratified sampling technique was used to group the schools into three strata namely public, denominational and lay private schools, while the random sampling technique was then used to select the twelve schools from these three strata. The simple random sampling technique was also used to select the students and teachers. This random sampling technique avoids bias and gives every member of theaccessible population an equal chance of taking part in the study. It also enables the researcher to get diverse responses over his findings.

Instruments for Data Collection

The instruments for this study were constructed to collect both qualitative and quantitative data. Three instruments were used in this study: the questionnaire, interview guide and focus group discussion guide. The construction of these instruments was guided by the variables and research questions of the study.

There were two sets of questionnaire, one for students and another for teachers. An interview guide for administrators was used to get information from vice principals and deans of studies while the focus group discussion guide was used for the Heads of Department. The questionnaire for students and teachers were each made up of background information, followed by four sections A - D. Each of these sections was made up of eight structured or closed ended items to elicit quantitative information about teaching and educational wastage. Each of the questionnaire was a Likert scale type with four options i.e. strongly agree, agree, disagree and strongly disagree. Eachquestionnaire was composed of 8 closed ended items and 2 opened ended questions, making a total of 10 items/questions.The interview guide for vice principals/deans of studies was made up of six items, all aimed at collecting qualitative data about the study, while the focus group discussion guide also had six guiding issues for discussion.

Validity of Instruments

The researcher carried out both content and face validation of the instruments to ensure that they were good enough for the study. The instruments after constructionwere presented to theresearcher's colleagues for any necessary adjustments (face validity). To ensure that the constructs were all understood (content validity), a pilot study was thencarried out where the instruments were administered to some of the students and teachers who did not form part of the accessible population, but who had similar characteristics.

Reliability of Instruments

The researcher carried out a reliability analysis on both sets of questionnaire for students and teachers. Cronbach Alpha Reliability coefficients were satisfactory to an acceptable level. For this assumption to be accepted, Alpha should not be less than 0.70 (Cronbach, 1951).Cronbach's alpha coefficient was used to ascertain the internal consistency of the responses. Mathematically, reliability is defined as the proportion of the variability in the responses to the survey, or the result of differences in the respondents. From the reliability analysis both the students' and teachers' questionnaire had reliability coefficients of o.743 and 0.768 respectively.

Administration of Instruments

The directadministration technique (DDT) was used where questionnaire (for students and teachers) and interview guide (for vice principals/deans) were personally administered by the researcher in the respective schools of the participants, after taking permission from the various principals.For the focus group discussions with Heads of Department, the researcher conducted this with the assistance of one of his students who played the role of a secretary.

Method of Data Analysis

Data collected for this study were both quantitative and qualitative, which were analyzed using both descriptive and inferential statistics. The qualitative data were analyzed

thematically by grouping common ideas or themes together, while the quantitative data were analyzed using frequencies, percentages and thePearson Product Moment Correlation used to test the hypothesis.

FINDINGS

The scores of the independent variable were got from the responses recorded from the eight items of a four - point Likert scale questionnaire that measured teaching. The scores of the dependent variable were got from the eight items of a four - point Likert scale questionnaire that measured the educational wastage in secondary schools of the Littoral region of Cameroon.The statistical analysis technique used in this analysis was the Pearson Product Moment Correlation. The result of the analysis is presented on Table 1.

Table 1: Pearson Product Moment Correlation Analysis of the Relationship between Teaching and Educational Wastage in Secondary Schools of the Littoral Region of Cameroon (N=412)

Variable	$\sum X$	$\sum X^2$			
	$\sum Y$	$\sum Y^2$	$\sum XY$	Γ_{xy}	**p-value**
Teaching (X)	7012	124976	133524	-0.53**	0.000
Educational wastage (Y)	8050	165053			

p*<0.05; df=410; critical Γ_{xy} =0.098

The result of the analysis reveals that the absolute calculated Γ_{xy} -value of 0.53 is higher than the critical Γ_{xy} -value of 0.098 at 0.05 level of significance with 410 degrees of freedom. Also, the p-value of 0.000 is lower than 0.05. With the result of this analysis, the null hypothesis was rejected and the alternative hypothesis retained. This result therefore means that there is a significant relationship between teaching and educational wastage in secondary schools of the Littoral Region of Cameroon.

Given thatthere is a significant relationship between teaching and educational wastage in secondary schools of the Littoral Region of Cameroon, a further exploration of the relationship showed that the Γ_{xy} = -0.53 was negative. This indicates that the better the teaching the lower the educational wastage in secondary schools of the Littoral Region of Cameroon.

Qualitative findings on ways to reduce educational wastage through teaching were analysed thematically and the following were suggested as ways to maketeachingbetter:Step by step explanation, Positive teachers' attitude, Revision/Extra classes, Proper assessment and Assignment, Usingdigital technology, Syllabus coverage, Practical teaching/Competency based approach,Using many teaching methods, Entrepreneurship, Clubs and Reducing students-teacher ratio.

Participants of the focus group discussions generally agreed that their schools have very large class sizes with the students' population per class ranging between70 and 130. They also

affirmed that although aggravated by the socio-political crisis in the country, the situation had not been very different before the crisis. This was blamed on inadequate infrastructure and high students' repetition rates. It was held that teaching could be made interesting to students through the following ways: linking theory with practical, teaching contextual and not abstract issues, using technology e.g. projectors to limit boredom, use of good didactic materials, outdoor teaching or field work e.g. gardens, making our teaching active and lively and presenting content from simple to complex with good introduction for all lessons. The one book system per subject was discouraged, on grounds that no book is totally complete, especially with science subjects that involve practical and also a subject like literature in English where many texts are needed. The competency-based approach (CBA) was seen as a good approach as affirmed by most panel members but that the country needs so many decades to start thinking of successfully implementing it. That the context is not yet ready for CBA because the school system is examination based; the required infrastructure is not yet there; the large class sizes do not support it; there are no trained personnel, even the inspectors who claim to be trainers usually look very lost with CBA. They also held that training schools for teachers do not train teachers for the teaching of CBA, that the curriculum is too loaded with many subjects that make specialization difficult, and that in many cases the schemes for CBA even contradict the syllabuses. They agreed that teaching could be made better and educational wastage reduced through the following: strict respect of promotion criteria for students to sit up or work hard, i.e. no promotion for those below average or promotion on trial which usually frustrates students when they arrive examination classes. They also prescribed strict respect of enrolment criteria for instance French speaking students without good mastery of the English language should not be admitted to English speaking colleges, effective organization of the common entrance examinations to ensure the production of more reflective results.

In general therefore,the findings show that teaching has an inversed effect on educational wastage. This implies that the better the teaching the better the academic achievement of students and therefore the lower the educational wastage in secondary schools of the Littoral Region of Cameroon.

DISCUSSION

Findings of this study revealed that there is a strong inverse relationship between teaching and educational wastage in secondary schools of the Littoral Region of Cameroon. This means that the better the teaching, the lower the educational wastage in secondary schools of the Littoral Region of Cameroon. Therefore, the null hypothesis was rejected and the alternative hypothesis retained.

In the same light, Gagne's theory of Nine Events of Instruction (1985) holds that teaching involves a series of processes, which should be systematically followed when delivering instruction. Therefore, during teaching, the content should be systematically presented to learners. Teachers by this theory are expected to properly plan their lessons, determine teaching methods and ensure the availability of teaching-learning materials for smooth and

systematic presentation of content in order to facilitate learning. Therefore, the better the teaching the lower the rate of educational wastage.

These findings are also echoed by Patel (2017) who saw that when students do not develop interest and enthusiasm in the instructional methods, then they are likely to drop out of school; that teachers need to make use of instructional methods that are manageable and understandable by students. The lesson plans should be made interesting by even introducing role plays into them. Miriam (2016) in a study to investigate the factors influencing teacher performance in the implementation of the geography curriculum in Nkuene Division South Imenti District of Kenya found that the availability of resources had a strong relationship with the performance of teachers as they helped them carry their day to day activities effectively. It was also revealed that teachers that had a negative attitude towards the teaching of geography subsequently had their performance affected. Jennifer (2010) in a study to determine how implementing a homework correction plan effects student achievement in mathematics New York State, saw that time spent outside of school on learning can affect students' achievement. Nekang (2018) also found that students achieve more when the curriculum is better implemented, with a glaring example being that of using mathematical games to teach mathematics in secondary schools.

Qualitative findings also revealed that teaching has an influence on educational wastage in secondary schools of the Littoral Region of Cameroon. With regards to this, participants generally agreed that their schools have very large classes with the students' population per class ranging between70 and 130. They also affirmed that although aggravated by the socio-political crisis in the country, the situation had not been very different before the crisis. They agreed that this was a big impediment to the teaching exercise in addition to shortage of infrastructure and equipment. The competency-based approach (CBA) was identified as one that could make things better, but that the context was not yet ready for it, reason why its implementation remains a very big failure. They added that there were not enough trained personnel, and that even the inspectors who claim who are usually presented as trainers mostly look very lost with CBA.

The one book system per subject for each class was described as a very bad one and a hindrance to teaching. That no one book can be totally complete, especially with science subjects that involve practical and also a subject like literature in English where many texts are needed. They saw the one book system as an attempt to solve a smaller financial problem of parents but creating a bigger problem in schools by making the teaching-learning process more difficult as it kills research culture in secondary schools. It was also identified that there is a wide gap between secondary schools and industries that can prepare teachers and students towards job creation.

They then proposed the following measures to make teaching better: linking theory with practical; teaching contextual and not abstract issues; using technology in teaching e.g. projectors to limit boredom; use of good didactic materials; making the teaching lively, presenting content from simple to complex with good introduction for all lessons and also to establish a good link between schools and industries.

Conclusion

Wastage in the field of education occurs due to numerous factors. This study looked at the influence of teaching, on educational wastage in secondary schools of the Littoral Region of Cameroon.

Any weakness in theteaching process imposes detrimental effects and is likely to cause educational wastage. Educational wastage occurs, when students drop out of educational institutions due to various reasons such as, failure or being unsuccessful in examinations; repetition of classes; stagnation or multiple repetitions; inability to make use of the knowledge acquired to earn a living or for the welfare of the society, and inability to get employment. One of the aspects that is of utmost significance is to make use of education in implementing the traits of morality, ethics and behaviour. The individuals should be equally honest in their conduct and possess effective communication skills. In order to alleviate this problem of wastage, it is vital to make improvements within the education system.

Based on the findings of this study, it was concluded that there is an inversed relationship between teaching and educational wastage. Therefore, effective teaching or an improvement on teaching will make the academic performances and achievement of students better and by implication therefore, educational wastage in secondary schools will witness a decline with the improved teaching.

The causes of educational wastage in secondary schools are pertinent issues in the provision of quality education and unless these causes are addressed by all the education stakeholders in the country, a certain percentage of the citizens will miss out on the development agenda both at the society and the individual levels. In as much as this state of affairs is not controlled, there will be wastage in terms of human capital and other resources. The mitigation strategies proposed to minimize educational wastage in secondary schools are quite practical in applicability and if they are given a chance, the percentage of repetition, stagnation, dropout of students, non-usability and non-employability would indeed be minimized thereby minimizing educational wastage in secondary schools.

Recommendations

From the findings of this study, it was suggested that:French speaking teachers without a firm background in English should not be posted to teach in English speaking schools. An examination body should be created to better organize entrance examinations into secondary schools like common entrance and the first school leaving certificate to ensure the production of more reflective results. Secondary schools should have direct links with industries that can prepare teachers and students towards job creation. Teaching could be made active and lively through student-centered methods, usingmultiple teaching methods, and use of digital technology,while encouraging slow learners through remedial teaching. Teachers could use remedial teaching to encourage slow learners.

REFERENCES

Adigwe, O. A. (1997, July). A report to the 1997 Joint Consultative Committee on Education on 'Exam ethics project." University of Lagos, Lagos.

Akolo, F. O. (1998). Solution to falling standard of education in Nigeria. *Herald,* Wed, May 24.

Audrey, S. (2009). The consequences of dropping out of high school: Joblessness and jailing for high school dropouts and the high cost for taxpayers. *Centre for Labour Market Studies*, Northeastern University.

Babalola, J. O. (2014). Trends and issues in educational planning. A paper presented at the Conference of Directors Planning, Research and Statistics (DPRS), National Institute for Educational Planning.

Brimer, M. A., & Pauli, L. (1971). *Wastage in education: A world problem*. UNESCO: IBE Paris – Geneva.

Callanghan (1966). The birth of Italian Pret-a-Porter. *Twanyne Publishers*.

Chrombach (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Colin, H. (1969). *Teaching geography in Ghana.* Ghana Publishing House.

Desforges, C. (1995). *An introduction to teaching: Psychological perspectives.* New Jersey: Wiley, John & Sons Incorporated.

Deribe, D. K., Endale, B. D., & Ashebir, B. E. (2015). Factors contributing to educational wastage at primary level: The case of Lanfuro Woreda, Southern Ethiopia. *Global Journal of Human – Social Science: Linguistic & Education, 15*(6), 9-19.

Dewey, J. (1956). *The child and the curriculum, and the school and the society.* University of Chicago Press.

Durosaro, D. O. (2012). Cost of education: Where the shoe pinches. *(103rd Inaugural)* University of Ilorin, UniIlorin Press.

Eisenman, T. (1997). Reducing repetition: Issues and strategies. Paris: IIEP-UNESCO.

Frimpong, J. A. (1990). Clinical supervision. *The Teacher, GNAT*, Accra, Jan – March, pp. 10-16.

Gagné, R. M. (1985). *Conditions of learning* (4th ed.). New York: Holt, Rinehart, & Winston.

Goodlad, J., & Anderson, C. (1987). Improving access to schooling in third world countries: An overview. *Project Bridges*, Harvard University.

Hanushek, E. (2013). *Endangering prosperity: A global view of the American school.* Brookings Institution, USA.

Harton Committee (1929).

Jennifer, M. H. (2010). The effects of homework on student achievement. *The State University of New York College at Brockport.*

Kane, E. (2004). Girls' education in Africa: What do we know about strategies that work? Washington, DC: World Bank.

Kebede, D. D., Demissie, E. B., & Estifanos, A. B. (2015). Factors contributing to educational wastage at primary level: The case of Lanfuro Woreda, Southern Ethiopia. *Global Journal of Human Social Science: Linguistics and Education, 15*(6), 1-13. Retrieved

March 24, 2018, from https://globaljournals.org/GJHSS_Volume15/2-Factors-Contributing-to-Educational.pdf.
Levin, H. M. (1972). The costs to the nation of inadequate education. Study prepared for the Select Committee on Equal Educational Opportunity, U.S. Senate. Washington, D.C.: Government Printing Office.
Melby, C. S. (1994). *Ghana primary school development.* Accra: Ghana Publishing Corporation.
Miriam, G. G. (2016). Factors influencing teacher performance in the implementation of the geography curriculum in public secondary schools in Imenti South Sub County, Meru County, Kenya. *University of Nairobi, Kenya.*
Muhammad, F. J., & Muhammad, A. K. (2011). Determining the factors influencing dropouts in government primary schools of Karachi, Pakistan. *Federal Urdu University.*
Musyimi, C. M. (2011). Wastage rates in Kenyan secondary schools: A case of Kathonzweni District, Makueni County. *Research report for M.Ed, Kenyatta University.*
Mutunga (1993). A survey of consumer attitudes toward the life insurance industry in Kenya. *University of Nairobi.*
Narayan, K., & Reddy (1979). *Man, education, and values.* New Delhi: B.R. Publication.
Nekang, F. (2018). The use of mathematical games and secondary school students' achievement in mathematics in Fako Division, South West Region of Cameroon. *Journal of Education & Entrepreneurship*, 5(1), 20-31. https://doi.org/10.26762/jee.2018.40000009.
Neto, G., & Hanushek, E. A. (1994). Causes and consequences of grade repetition: Evidence from Brazil. Chicago: University of Chicago Press.
Ngau, M. (1991). Grade repetition and school dropouts in Kenya primary schools.
Nilsen, A. B., & Albertalli, G. (2002). *Introduction to learning and teaching infants through elementary age children.* New York: Delmar.
Nkinyangi, J. A. (1982). Socio-economic determinants of early school withdrawals at the primary level and their implications for educational planning in Kenya. Ph.D. Thesis: Nairobi University.
Nneka, G. (n.d.). Reducing educational wastage to regenerate Nigerian higher education for national development. *Journal of Assertiveness, ISSN: 2276–9684.*
Oyetakin, A. I. (2011). Cost of education: Determinants of free education and human infrastructure in Nigeria. *Educational Thought,* Faculty of Education, Adekunle Ajasin University, 8(1), 171-185.
Parelekar, R. V. (1939). Literacy in India. Quoted by Sree Veda Prakash. *Stagnation and wastage.* Education Yearbook, New Delhi: NCEHT.
Patel (2017). Addressing 'whiteness' during clinical psychology training. *South African Journal of Psychology, 47*(3), 280-291.
Perrot, E. (1982). *Effective teaching: A practical guide to improve your teaching.* London: Longman.
Psacharopoulos, G., & Woodhall, M. (1985). *Education for development: An analysis of investment choices.* Washington, D.C.: Oxford University Press.
Right to Education Act of 2009.
Rumberger, R. W. (1987). High school dropout: A review of issues and evidence. *Review of Educational Research, 57,* 101-121.

Rumberger, R. W. (2008). Student engagement, peer social capital, and school dropout among American and non-Latino white students. *California Dropout Research Project*, 15, 1-130.

Samuel, S. M. (2017). Factors that influence educational wastage in public secondary schools in Kathiani Sub-County, Machakos County, Kenya. *South Eastern Kenya University.* Retrieved July 12, 2020, from http://repository.seku.ac.ke/bitstream/handle/123456789/3241/Samuel_Factors%20that%20influence%20educational%20wastage....pdf?sequence=1&isAllowed=y.

Schlechty, P. C. (2004). *The art of teaching.* New York: Prentice Hall Inc.

Sequeira, A. H. (2012). Introduction to concepts of teaching and learning.

Shannon, G. S., & Bylsma, P. (2003). Helping students finish school: Why students dropout and how to help them graduate. *Office of the Superintendent of Public Instruction*, Olympia, WA. Retrieved from http://www.k12.wa.us/research/.

Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57*(1), 1-23.

Smith, M. K. (2004). *Educational development in Ghana.* Accra: Unimax Publishers.

Tamakloe, E. K. (2005). Preparing for teaching practice and the process of teaching (3rd ed.). Cape Coast: Winx Computers.

Thring, A. S. (2001). *Education, manpower, and economic growth.* New York: McGraw Hill.

UNESCO (1970). *Educational trends: An international survey.* Geneva, 1-10 July 1970.

Wanjiku, M. N. (2014). Determinants of educational wastage in public secondary schools in Laikipia West District, Laikipia County, Kenya. *Kenyatta University.* Retrieved July 10, 2020, from http://irlibrary.ku.ac.ke/.

World Bank (2014). *Cameroon Economic Update.* Retrieved from http://www.worldbank.org/en/country/cameroon/publication/cam