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CURRICULUM INTEGRATION: AN ASPECT OF QUALITY EDUCATION IN CAMEROON PRIMARY SCHOOLS

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DEDICATION

TO

My Parents:

Mr. AJONG Isaiah and Mrs. LEAH Andugaku

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TABLE OF CONTENTS

FIGURES

TABLES

ABBREVIATIONS

CBA: Competency Based Approach

CBE: Competency Based Education

CI: Curriculum Integration

CES: Cameroon Education Sector

CPES: Cameroon Primary Education Syllabuses

CPS: Curriculum of Primary Schools

CVI: Content validity index

DV: Dependent Variable

EFA: Education For ALL

GCE: General Certificate of Education

GESP: Growth and Employment Strategy Paper

ITL: Integrated theme learning

IV: Independent Variable

KAS: Knowledge, Attitudes, skills

LMD: Licence, Master, Doctorat

MDG: Millennium Development Goals

MINEDUB: Ministry of Basic Education

NSSE: National Society for Study OF Education

PBL: Project-based learning

PSCES: Primary school Curriculum English Subsystem

QE: Quality Education

RC: Relevant content

SDGs: Sustainable Development Goals

SND: Stratégie Nationale de Development

STEM: Science, Technology, Engineering and Mathematics

STS: Science, Technology and Society

UNESCO: United Nations Education Scientific and Cultural Organization

UNICEF: United Nations Children Fund

USA: United States of America

ABSTRACT

This study titled "Curriculum Integration: An aspect of quality Education in Cameroon Primary schools examines curriculum features of integrated curricular and its impacts on quality education. The problem comes up from varied concerns stating: there is poor quality education in Cameroon Primary Schools resulting from the education policy, Curriculum structure/content and implementation and inappropriate exploitation of Curriculum elements of integrated Curricular. Integration is viewed in the perspective of curriculum design, aims and objectives of the "new education." The main objective is to examine how Curriculum integration influences quality education in Cameroon Primary Schools. This means examining if there is a significant correlation between Curriculum integration and quality education in Cameroon public and private primary schools. The constructivists and progressivism theories together with Taba's instructional strategies model, the curriculum features for integrated curricula and how to integrate the curriculum directly championed all assertions related to this. The study employs the mixed research approach with closed/open ended questions and the Flanders interaction analysis category system of classroom observation. The probability sampling and the Pearson product moment correlation are applied however, a sample size of 110 participants is determined by Yamane's formula of finite population while the descriptive/inferential statistics (regression analysis) and multiple regression respectively are used in the analysis. From the results, a significant regression model [F (3.106) = 10.125, p = 0.022] with an R2 of 0.297 is found. The quality of education increases by 0.083 units for every increase in integrated themes learning, by 0.142 for every unit increase in Content relevance and finally by 0.211 increase caused by a unit increase project-based learning. This shows a statistically positive significant correlation between Curriculum integration and Quality education. Having retained all the specific alternative hypotheses, we get to the conclusion that Curriculum integration impacts quality education in Cameroon primary schools. Base on the findings obtained, the study makes major recommendations to Government, School administration and national/external stakeholders and calls upon an inevitable teachers' inclusion in the curriculum development process.

Key words: Curriculum Integration, quality education, learning by doing

RESUME

Cette étude intitulée « Intégration curriculaire : Un aspect de l'éducation de qualité au Cameroun Les écoles primaires examine les caractéristiques curriculaires du cursus intégré et ses impacts sur la qualité de l'éducation. L'objectif principal est d'examiner comment l'intégration du curriculum influence la qualité de l'éducation dans les écoles primaires du Cameroun. Cela signifie examiner s'il existe une corrélation significative entre l'intégration du curriculum et une éducation de qualité dans les écoles primaires publiques et privées. Les théories constructivistes et progressistes ainsi que les stratégies pédagogiques de Taba L'étude utilise l'approche de recherche mixte avec des questions fermées/ouvertes et le système de catégories d'analyse interactive de la Flandre pour l'observation en classe. La corrélation du moment du produit de Pearson est appliquée, cependant, une taille d'échantillon de 110 participants est déterminée par la formule de population finie de Yamane tandis que les statistiques descriptives/inférentielles (analyse de régression) et la régression multiple sont respectivement utilisées dans l'analyse. À partir des résultats, un modèle de régression significatif [F (3,106) = 10,125, p = 0,022] avec un R2 de 0,297 est trouvé. La qualité de l'éducation augmente de 0,083 unité pour chaque augmentation de l'apprentissage de thèmes intégrés, de 0,142 pour chaque augmentation d'unité de la pertinence du contenu et enfin de 0,211 augmentation causée par une augmentation d'unité d'apprentissage par projet. Cela montre une corrélation significative statistiquement positive entre l'intégration du curriculum et la qualité de l'éducation. Après avoir retenu toutes les hypothèses alternatives spécifiques, nous arrivons à la conclusion que l'intégration curriculaire a un impact sur la qualité de l'éducation dans les écoles primaires camerounaises. Sur la base des résultats obtenus, l'étude formule des recommandations majeures aux différents acteurs et appelle à une inclusion incontournable des enseignants dans le processus d'élaboration des programmes d'études.

Mots-clés : Intégration curriculaire, éducation de qualité, apprentissage par la pratique

CHAPTER ONE

THE PROBLEM

1.0 Background to the study

This chapter presents the main issues plaguing this study with the aim of setting up a clear orientation for the reader thus, relinquishing good understanding of the elements that constitute this piece of art. The historical, contextual, conceptual, theoretical backgrounds have been posited together with the justification, problem statement, research objectives, research questions, research hypotheses, scope and delimitation and finally the significance of the study to the different actors in connection to teaching/learning in the Cameroon primary school sector. The discussions are centred around the pedagogy of integration which is a strategy to engage learners with competencies needed for life thus recommending the transformational education orientation.

The aim of Curriculum integration is to make learning meaningful and important to learners by building in the spirits of active participation in the classroom and the 21st century skills in all the elements of the curriculum and through varied forms of motivation and teaching strategies. This study has as objective to investigate the influence of curriculum integration on quality education in the Cameroon Primary Sector. Integrated learning is significantly influenced by teacher awareness of the practices and belief systems (Palmer, 199, p.59) that guide the teaching/learning process for a desiring equitable learning. This approach to the realization of competency development can be achieved through integrated theme-learning, project based learning, relevant content and cooperative/collaborative learning strategies in accordance with the science-technology-society approach. However, good knowledge of relevant content, instructional materials, healthy learners and healthy environments are pivotal for quality since educational quality is determined by what goes on in the classroom and beyond.

Curriculum integration which is a knowledge view and curricula approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic or experience (Jacobs, 1989, p. 8) is crucial in pedagogic discuss today. It combines several school subjects into one active project since this is how children encounter subjects in real world situations. All efforts are hetasceta geared to guarantee quality assurance in response to the aims and objectives of the "new education." advocated by

the Progressivists and Constructivists theorists. The researcher's contribution is set-up guidelines for integration, quantity teaching/learning and effective implementation of the curricular to enrich objective output in Cameroon Primary Schools.

1.1 Historical Background to the study

Curriculum the core of educational activities has been a major call for attention for decades, Plato; a Greek philosopher of the 4th century BC, Comenius; the Moravian Bishop, Educationists of the 17th century including Froebel; the German educationist of the 19th century dedicated their interest to the study of curriculum and its problems. However, the systematic study of curriculum and curricular phenomena and the identification of some individuals as curriculum experts was not achieved until the 20th century. Therefore, Curriculum as a field of study is derived from the Latin term "curus" which means "a race/course or a running course or race/track for chariots" (Banjo, 1916), curriculum the central issue in schooling as well as a distinct field of study dates back to the year *1918* when its first book titled "The Curriculum" was written and published by John Franklin Bobbitt. The 1920s generally regarded as the formative years in the field of curriculum saw volumes of curriculum materials written by educational theorists and practitioners thought of as curriculum experts. In the 1926, a 685-page exhaustive review of the curriculum movement - "The Foundations and Techniques of Curriculum Construction" was published by the National Society for the Study of Education (NSSE) For Franklin Bobbitt, W.W. Charles, Charles Judd and Harold Rug. From the 1930s and 1937, Curriculum became a university discipline where students could obtain degrees therein.

However, the term curriculum is used in the English-speaking tradition as the French equivalent of programme d'étude. Nowadays, the concept is used universally within the framework of globalization, the theory of pedagogy and the sociology of education to refer to the existing contract between the state, society and educational professionals. For a majority of experts, the term curriculum defines (1) why (2) what (3) when (4) where (5) how and (6) with whom to learn. The curriculum therefore looks at educational foundations and contents, their sequencing in relation to the amount of time available for the learning experiences, the characteristics of teaching institutions, characteristics of learning experiences from the point of view of the methods to be used and the resources for teaching /learning (textbooks and new technologies). Following the works of Stenhouse and other researchers, the educational community considers that the curriculum has both a political and a technical/professional dimension as it relates to the connection between the goal of education and everyday life in learning institutions such as schools, colleges and universities.

Having hinged on what curriculum means, it necessary to view its relationship with education. Mann (1796), the father of education invented learning in the 19th century and is credited with creating the foundation of our modern public education. Etymologically, the word education is derived from the Latin words "educare and educere." "Educare refers to" to bring up or to nourished, while "educere" means "to bring forth or to draw out." Some scholars argue that the word has been derived from the Latin word "educantum" which has two components. "E" to imply movement from inward to outward and "duco" refering to developing or progressing. An analysis of these words reveal that education aims at providing a learner a nourishing environment to bring out/develop the talents hidden inside him. Education however, has the potential to promote growth and reduce poverty, promote healthier environments, create a culture of innovation and build cohesive, peaceful, and prosperous societies. In order to reach this purpose, nations must seek to quality education that provides students with relevant, adequate knowledge and the skills that allow them to face the challenges of the world. Consequently, care must be taken to ensure that no individual is excluded from learning opportunities. In May 2015, representatives of global education community (The world education forum) signed the education 2030 agenda declaration and undertook a commitment to ensure «inclusive and equitable quality education and promote life-long learning opportunities for all." The global education leaders and stakeholders undertook to engage in various actions, UNESCO and its member states adopted the 2030 education framework for action which proposes strategies, approaches, policies and plans directed as key characteristics of education come 2030. These include: inclusion in education, equity, quality and life-long learning.

This enormous vision for education is a dominant role in achieving sustainable development contained in the 2030 agenda for sustainable development. The sustainable development goals (SDGS) approved by united Nations member states (2015) involved a set of 17 strategies to end poverty, inequality, climate change amongst other interconnected goals to be achieved by 2030. This 2030 education vision underpinned social, environmental and economic integration into all development programs and situates education as a key component in the advancement by creating an independent goal (SDG 4) to ensure "inclusive and equitable quality education, promote life-long learning opportunities for all." This by 2030 should form part of all national development strategies in the promotion of life-long learning to formal education in Cameroon and across the globe.

1.2 Contextual Background to the study

Education politics in Cameroon from the time of partition by Britain and France (1918-1929) is comprised of two subsystems of education, these include: the English and the French subsystems. French and English for decades now have been the official languages of instruction with equal status in academia, socio economic and political domains. Cameroon primary education syllabuses (CPES) involves subjects intended to build learners' knowledge, attitudes, aptitudes and skills (KAS) for personality enhancement. This implies that it is more concerned with the acquisition of cognitive skills for moral, socio-cultural and civic growth of the child. The Present Curriculum and education policy in Cameroon base on the development of cognitive than affective and psychomotorists skills seemed to have failed.

Education policy in Cameroon has been top-down (contrary to the bottom-up modernist approach). This is embodied in its Supra, macro, meso, micro and nano curriculum. This design has made appropriate allocation of human and material resources in education difficult. Teachers in both systems are simply handed the blue print in a dictatorial fashion to implement; they are also ignored in the development process whose consequences are lack of knowledge in regard to the philosophy of education, education orientation and poor performance thereafter.

In Curriculum design, Macro means “understanding where you want to end up before you begin" (Eduplanet, 2018). Macro teaching technique calls for a content being delivered to a large audience usually a class of 40 and longer time duration; in a transactional education orientation considered as an output of a centralized system. Controversies in a centralized system are disastrous to holistic learning. Due to crisis like in Ukraine and the outbreak of covid 19; education has moved from the traditional classroom to platform learning. This practice has given rise to vedeo and audio curriculum. This constitute a big challenge to all actors thereby affecting the overall chain.

The curriculum domain in Cameroon’s Primary and even Secondary Education from the traditional subject driven, objective approach, learner centred and society based models to one rooted in the principles of Competency-Based Education (CBE) is aimed at giving education a "new look" corresponding to human and societal evolution. Competency in the education reform movement in the United States of America (1960s-1970s) is concerned with the European Key Competencies and the 21st century skills model in the actual education context McClelland (1973), Gilbert (1989) & Grant (1979), as cited in Soare (2015). This new approach to teaching and learning responses to the global call for a lifelong learning following the

Education for All (EFA) conference (1990) in Jomtein, Thailand by UNESCO, the 47th International Conference on Education by UNESCO in Geneva (September 8-11, 2004). During the Dakar meeting in Senegal (2000), participating countries re-affirmed their determination to achieve the Millennium Development Goals (MDG) and the EFA goals by 2015 in a bid to improve on the quality and usability of education.

The National Forum on Education (1995) proposed orientations for National Education which were encapsulated in the 1998 Law to lay down guidelines for education. In response to these strategic orientations, Cameroon engaged in the elaboration of an Education Sector Strategy (ESS) between 2006-2011 based on the Poverty Reduction Strategy paper (PRS, 2003) and in adopting the Growth and Employment Strategy Paper (GESP, 2009) now The National Development Strategy 2030 (NDS2030), the government took an option to promote growth as a source of wealth and employment for Cameroon's emergent, democratic and united society by 2035. This Education Sector vision consists on one hand the provision of youth with quality education, requisite competences and professional attitudes and on the other hand to ease their insertion into the professional world.

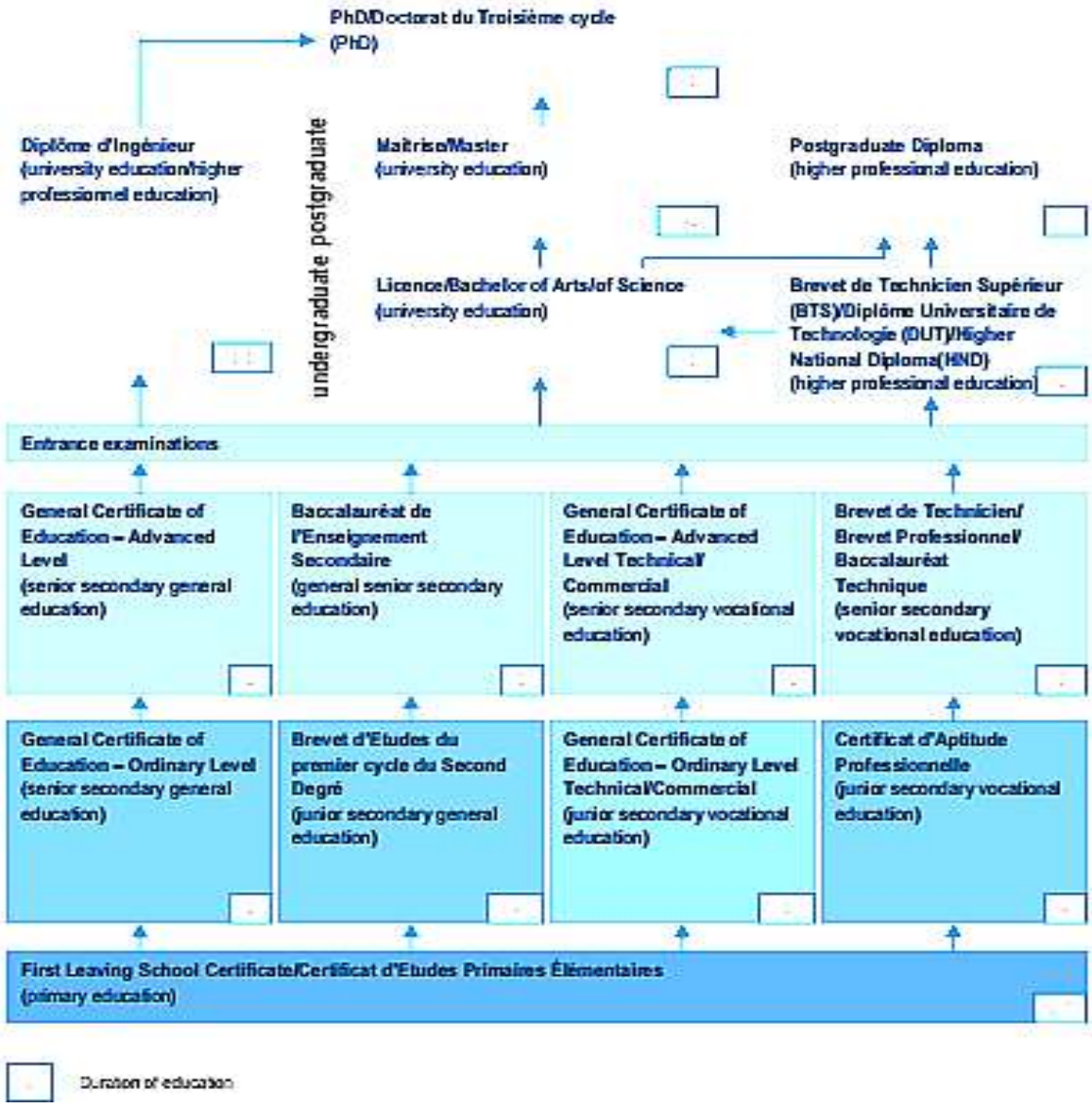
The Primary School Curricula (2018/2019) follow a Pedagogy of integration in Constructivist educational philosophy, underpinned by developmental theory. This guide line build around seven national core skills - communicate in two official languages, use at least one national language, use basic notions in mathematics, science and technology, practice social and citizenship values, demonstrate spirit of autonomy, sense of initiative, creativity and entrepreneurship, use basic information and communication technology concepts and tools, practice life-long learning and physical/ sport and artistic activities constitute the spring board of the curriculum as there are hinged on four broad-based competences: Intellectual, methodological, personal and interpersonal and communication competencies and five domains is part of government strategy to reach her developmental needs. This could only be achieved through education which has as potential to promote growth and reduce poverty, promote healthier environments, create a culture of innovation, build cohesive /peaceful and prosperous societies endowed with appropriate technologies.

In order to guarantee quality education in Cameroon primary schools, the Competency-Based (CBA) pedagogic approach is pivotal at permitting the development of life skills and abilities, attitudes and aptitudes necessary for the integration of learners into the national and global economy. The four major objectives of Cameroon vision 2035: Eradicating poverty

(taking it down to 10%), becoming a middle income country, becoming a newly industrialized nation, and becoming an emergent nation are in working spirit with this goal.

The Constitution of Cameroon also provides grounds for quality assurance via policy for education of good quality offered to all Cameroonian children in conformity with the sustainable development goals (SDG: 4) and the EFA goals. From this analysis we can conclude that the state in collaboration with other national and international stakeholders have put in major strategies to make learning meaningful for quality achievements but equipping teachers with necessary knowledge and instructional materials including proper assessment of learning outcomes for this task is still a challenge. It is on this basis that the researcher wishes to conduct this study. Therefore, in regard to the contextual background explored in this section, consider figure 1 for any addional information.

Figure 1 : Education system in Cameroon



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1.3 Conceptual background to the study

Curriculum

To Taba (1962), the curriculum is "a plan for learning." Taba's view on curriculum design is considered as further elaboration of Ralph Tyler's (1969) rather than psychological principles of curriculum development. She addresses the demands of the society both present and future. However, the curriculum is a means to prepare the youths to participate in our culture. Taba believes that, teachers who implement/teach the curriculum should participate in its development process, this will permit the model she calls "grass-root approach." Ralph Tyler (1969) on his part defines the curriculum as "all learning of students, which is planned and directed by the school to attain its educational goals." To him the curriculum is those varied activities that the school puts in place to achieve its educational goals. Amongst these activities we can site time tables, syllabuses, programs and much more.

Bilbao et al. (2008) considers the curriculum to be «total learning experiences of the individual not only in school but society as well." To him, the curriculum is a more global issue that is not limited to the school but the society as well has its vital role to play. This is seen through the influence of stakeholders in the conception of the curriculum. For Miled (2006) the Curriculum refers to the design, the organization and programming of teaching/learning activities as an educational course. It includes a statement of goals, content, activities and learning processes as well as the methods and means of assessment of student's achievement. Its design echoes a school project reflecting a social project, it gives rise to behaviors and practices rooted in a given educational reality. Thus in upstream looming intentions of curriculum and that downstream materialize its contextual use. To Perrenoud (2000), it is necessary to articulate the curriculum concept for/ one thing about the effective courses of training of the educated individuals and to think about the institutional representation of the course that the students are supposed to follow. However, it is the prescribed and the actual curriculum.

Roegiers (2000) talks about apparent curriculum which represents the explicit curriculum, verified by official documents, the actual curriculum represents the practical implementation by a teacher. There is also the hidden curriculum – consisting of all that the

school vehicles as defaults through courses, admission criteria, the design of learning, the error status for example. Therefore, to him, the curriculum is what is done effectively without being explicit and that is what students perceive. Cuq (2003) wrote "institutionally, the curriculum is the form taken action to streamline led by makers of education to facilitate learning throughout a given period, an experience learning to the greatest number of learners." This streamline action can be seen as a set of relevant processes of decisions to generate planned and guided learning experiences (Johnson, 1989). The curriculum is thus meant to define educational objectives, established needs of learners, to determine the objectives, content, processes, resources of teaching and forms of assessment (Cuq, 2003).

According to Tambo (2003) three principle considerations influence the definition of the term curriculum and are at origin of its controversial views, these include the implicit, explicit and the extracurricular considerations. The curriculum therefore, is all organized, overt and covert activities that do with educating the youths to participate in our culture of innovation (writer's view).

Curriculum Integration

Curriculum integration involves: Integrated theme learning, project-based learning, and relevant content, development of problem solving skills, opportunities for critical thinking and creativity, constructivist learning, Science-technology-society approach, connecting different curricula disciplines, purposive learning and individual or small group studies. Integrated theme learning provides a common ground for focus for the teacher and children to create a sense of purpose and community within the classroom as choosing the topics based on learner's interest provides for motivation and enthusiasm in learning while Project planning permits that the disciplines are naturally combined. The goal is to learn about something with all available resources and incorporating the skills knowledge and dispositions needed to accomplish that goal. These skills, knowledge and dispositions are better learned in real world context. Therefore, using projects is an opportunity for the application and the consolidation of learning we value (Katz & Chard, 1989). On the other hand, the individual and small group studies is done by allowing for independent and small group study based on the child's (small group) interest/ curiosity about the world - to help students become independent learners. Pupils inspire other pupils as they learn to learn.

The term interdisciplinary curriculum is often synonymously used as curriculum integration (Good, 1973). Roegiers (2000) combines the concept of curriculum and that of integration. The integrative curriculum is guided by the concern of integration in learning. Curriculum integration takes into account all the dimensions intended to enable the learner weave a variety of links with his/her knowledge in a bid to allow an effective mobilization. The integrator curriculum essentially reflects a degree of integration whose concern does not prevent from being different from the official curriculum not even in defining the terms (Roegiers, 2000, p. 105).

To Good (1973), "it is a curriculum organization that cuts across subject-matter lines to focus upon comprehensive life problems or broad based areas of study that bring together the various segments of the curriculum into a meaningful association." Similarly, Jacobs (1989, P.8) defines it as "a knowledge view and curricula approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic or experience." Therefore, an integrated/interdisciplinary curriculum is one that combines several school subjects into one active project since this is how children encounter subjects in real world situations. The concern here is to permit a curriculum that is relevant, standard based and meaningful for students in challenging them to be able to solve real world problems (Loepp, 1999, p.21) This approach prepares children for a life-long learning as schools look at education as a process of developing abilities required by life in the 21st century rather than discrete/departmentalized subject-matter.

Integrated learning is significantly influenced by teacher awareness of practices and belief systems (Palmer, 1991, p. 59) that guide the teaching/learning process for a desiring equitable learning. This approach to the realization of competency development can be achieved through integrated theme-learning, project based learning, relevant content and individual or small group studies keeping in mind the science - technology - society approach, a good knowledge of subject content, instructional materials, healthy learners and healthy school environment are of top priority in rendering quality since educational quality is determined by what goes on in the classroom and beyond. Integration in this study follows horizontal organization in curriculum design as its engages the curriculum worker with scope an integration - that is the side-by-side arrangement of curriculum elements. It is when content from one field is meaningfully related to content from another field and emphasizes on horizontal organizational relationship among various contents and themes.

The importance of integrated learning /teaching process is that it enables the child to acquire and use basic skills in all content areas and to develop positive attitudes for continued successful learning throughout the elementary grades. Integration therefore, acknowledges and builds on the relationship which exist among all things.

Education

The education of a human being is perhaps the most cherished goal of human civilization. Therefore, philosophers, educationists and great thinkers have tried to sort out what this term actually means, however, in these definitions one would find a mark of the conception of the reality, values and belief systems. Consider the following.

According to Plato, "education is a means to achieve justice, both individual justice and social justice." To him, individual justice can be obtained when each individual develops his/her ability to the fullest.

For Durkheim, "l'éducation est l'action exercée par les générations adultes sur celles qui ne sont pas encore mures pour la vie sociale. Elle a pour l'objet de susciter et de développer chez l'enfant un certain nombre d'états physiques, intellectuels et mentaux que réclament de lui et la société politique dans son ensemble et le milieu social auquel il est particulièrement destiné".

Quality Education

QE involves the learners (who are healthy and strong), the environments that are safe, teaching methods, contents that are responsive of relevant curricula, parent support and motivation, quality infrastructure and infrastructure and competent/experienced human resources. Quality in education refers to fitness for purpose. It pertains to what, where and how students are taught and by whom? However, quality is influenced by what goes on in the classroom and beyond. The terms efficiency, effectiveness, equity are used synonymously when talking about quality education (Adams, 1993). According to UNICEF (2000), QE includes the following:

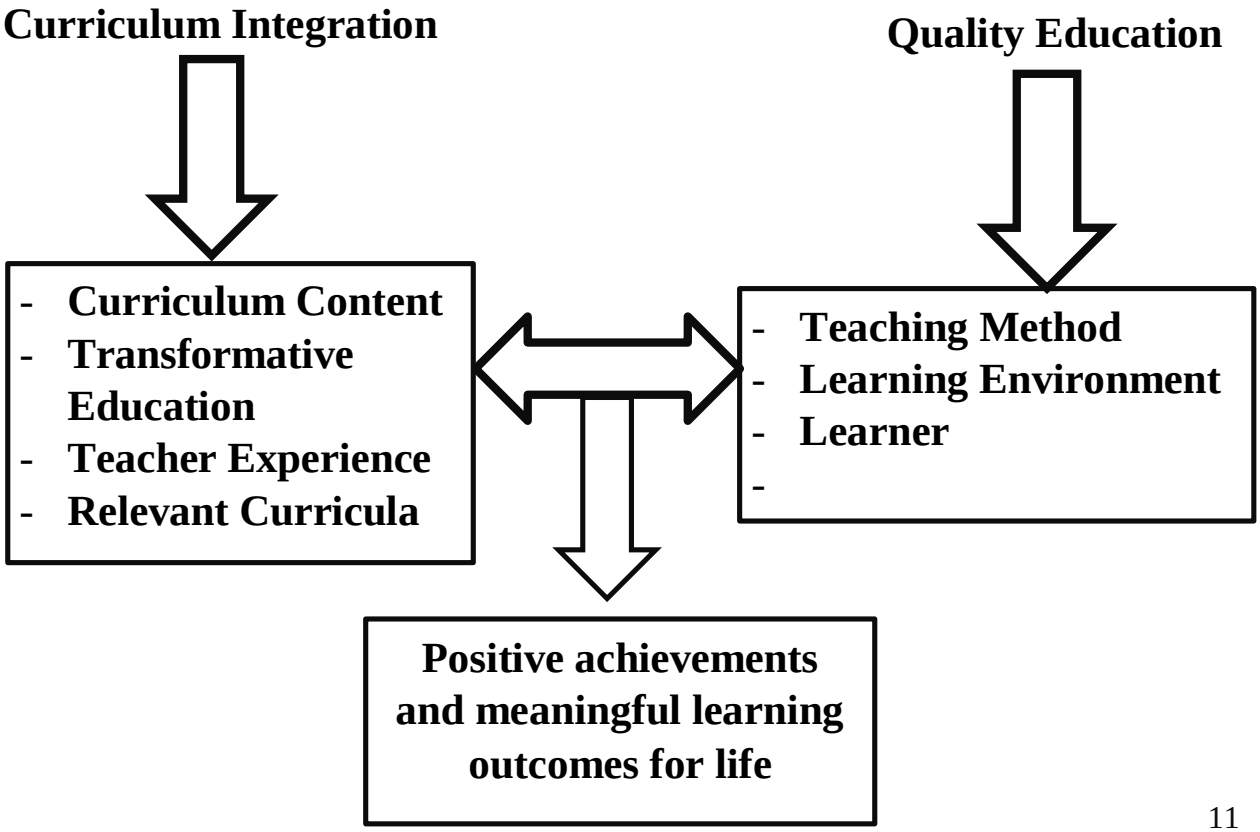
1. Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
2. Environments that are healthy, safe, protective and gender sensitive and provide adequate resources and facilities;
3. Content that is reflected in the relevant curricula and materials for the acquisition of basic skills especially in the areas of literacy, numeracy and skills for life and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace

4. Processes through which trained teachers use child-centred teaching approaches in well-managed classrooms/schools and skillful assessment to facilitate learning and reduce disparities;
5. Outcomes that encompass knowledge, attitudes and skills (KAS) linked to national goals for education and positive participation in society.

This definition permits an understanding of education as a complex system embedded in a political, cultural and economic context and takes in account the global influences that propel the discussion of quality education (Motala, 2000/ Pipho, 2000)

From a girl's perspective, quality education is defined by five key dimensions in which the girl is often fared poorly. This include the following: What learners bring, the environment, the content, processes and outcomes. Focus here is on adequate number of school infrastructures, equipment for learning, trained teachers and the number of children who finish school, what goes in and outside the school, education for human security, community development and national progress (UNICEF, 2002). Quality in education therefore, refers to an added value to what can contribute to the meta-cognitive development of the learner/society. Considering the definition of terms presented in this section, they exists a meta-cognitive friendliness between the key variables (CI and QE). See figure 2 below.

Figure 2: The link between Curriculum Integration and Quality Education



1.4 Theoretical Background to the study

In respect to the domain of theoretical background to this piece of writing, all assertions to this work are grounded on the educational philosophy of progressivism blended with the constructivist ideology**.** Progressivism therefore is an educational philosophy that springs from pragmatism. Famous scientists like Montessori, Cornelius and Rousseau have made great contributions to the development of this domain. Their findings are destined to investigate the most appropriate curriculum for the learner, there are much more concerned with a curriculum that focuses on the child and the learner and are interested on the needs, abilities and ambitions of the learner. According to John Dewey, the major promoter of this concept, the curriculum should involve the learner and a series of experiences which embrace the cumulative tradition of knowledge as well as the total culture of the society. However, in the progressivist view, the teacher is seen as a facilitator and resource person. Progressive educators have put in place five teaching and learning methods amongst which include the following:

1 Planning the curriculum between the teacher and the learner. Thus implanting democracy in education
2 simple curriculum and individualized instructions
3 A set of learner tools that take into consideration the interest and worries of the learner
4 information activities and physical training in the form of games linked to other domains of the curriculum

The aim of this teaching method is to provide a conducive environment for the autonomy of learners and impose the authority of the teacher during teaching. Focus here is on the learner's interest as progressivism encourages group learning and the curriculum is viewed as a guided learning experience that is centred on the needs/interests of the learner.

Constructivism on the other hand, refers to the idea that learners construct knowledge for themselves. To the constructivists, learning is an active process in which the learner uses sensory inputs to construct meaning out of it. John Dewey, the founder of the concept further stresses out that learning is not a passive acceptance of knowledge which exists out there but involves the learners engaging with the world. Another important aspect of constructivism is that, learning consists of constructing meaning and constructing systems of meaning. That is, people learn to learn as they learn. This confirms with the notion of learning as an active process. All this is done over time as learning is not instantaneous and is generally done through motivation.

1.5 Justification

This work is sparked by the researcher's desire to investigate quality assurance in Cameroon Primary Schools for quality and equitable learning. The choice of this subject follows horizontal organization and the perspective of integration as a curriculum design (Bean, 1993/1997) whose emphasis is on project-based learning and the effective application of knowledge. In this way the integrated curriculum will ''engage students as active learners who make most of the decisions about what they study (Brwon, 2016, p.123). However, curriculum integration allows for a model in which '' students become teachers and teachers become learners'' (Pate, 2013, p.174). Curriculum integration offers a way for teachers and students to pose questions and investigate issues that span from different content areas and disciplines while working together to transcend these boundaries (Beane,1997, Jacobs,1989, Jackson,2005). This ties with the objective (number 4) of Education for sustainable development, the Education for ALL (EFA) commitment, the SND30 and the 1998 law on education orientation as discussed above. By project-based learning, the student will be driven in the constructivist view of learners learning to learn as they learn in the context of real life situations especially at projects or other organized programs thus providing a conducive environment for learner's autonomy accompanied by appropriate learning tools, group learning and experiences focused on the needs and interests of the learner.

1.6 Problem Statement

The problem of this study comes up from varied concerns stating; there is poor quality education resulting from the education policy, curriculum structure/Content and implementation and inappropriate exploitation and mobilization of curriculum elements of integrated curricular conjoined with poor quality infrastructure/info structure and teaching methods. Though education is backed by regulatory laws like the constitution and the law on education orientation and educational sustainability; it requires careful consideration of the curriculum content, teaching methods, learners, infrastructure/technology and teachers' competences needed for the 21st century teaching and learning in conformity with an updated educational orientation. These phenomena constitute the core problems tempering education in primary schools. Advancement in regard to the objectives in the 2035 vision and the National Development Strategies 2030 (NDS 2030) entails education with appropriate technology, infrastructural tools and quality human resource management.

There is mass promotion caused by the effects of the CBA as pupils are not allowed to repeat a class thus violating the law of natural selection. Insufficient orientation and pre-service/in-service training for teachers are a call for concern, pedagogical seminars are held annually and nothing is being done to ensure effective teacher participation especially in the private sector. There is lack of recreational facilities like swimming pools, play grounds and excursions for out of school interactions, a good number of schools are owned by private individuals whose principal aim is profit maximization thus the marketing of education. The absence of these is detrimental to quality assurance. Most graduates from these schools cannot read and write appropriately; how then can they carry out the aforementioned 4Cs and apply knowledge effectively? There is poor knowledge on integration thus everyone seems to interpret it their own way, the content is inappropriate as education in time of crises an eminent concern nowadays is neglected. The country is just recovering from the effects of covid 19 and the Anglophone crisis which still persists has greatly influenced teaching/learning.

The problems raised in the Amnesty international report (2020/2021) are not addressed as well as the characteristics for an emerging Cameroon (Cameroon, 2009, Vision 2035) are less realistic. There is abuse by armed groups, unlawful killings, internally displaced people, gender-based violence, no freedom of expression and assembly, torture and abuse of democracy, peace/security, lack of infrastructures, poor quality services respectively as peace, justice, social cohesion and democratization are major issues tempering this agenda considering that this working program was published in 2018 a considerable period after the present crisis.

The interest here is the gap in the curriculum of primary schools (CPS) and its impact on quality education. This means examining whether CPS actually permits for the development of knowledge, attitudes, aptitudes and skills (KAS) that can enable the learners to fit in the national and global economies. The problem of this study is therefore centred on Curriculum and quality education (the curriculum and the skills it provides for quality outcomes in learners). The present Curriculum and education policy in Cameroon based on the development of cognitive skills than affective and psycho motorists skills seems to have failed. This is because the elements influencing quality (teaching methods, learning environment, present condition of pupils, subject matter and organization as discussed above are not appropriately exploited; also the features of an integrated Curriculum (holistic learning, relevance to learner's life, development of problem solving skills and science-technology-society approach) are also less applicable. How then can we adopt current educational practices to make learning meaningful

and suitable through integration? This challenge stimulates the researcher to bring forth some contributions to enhance quality education in Cameroon Primary Schools.

1.7 Research Objectives

General Research Objective

- To investigate how curriculum integration influences quality education in Cameroon primary schools**.**

Specific Research Objectives

- To examine the extent to which integrated theme learning increases quality education in the Yaoundé VI subdivision.
- To study how relevant content promotes quality education in Yaoundé six subdivision.
- To evaluate how project-based learning affects education effectiveness in Yaoundé six subdivision.

1.8 Research Questions

General Research question

- How does curriculum integration influence quality education in Cameroon primary schools?

Specific Research questions

- To What extent does integrated theme learning increase quality education in Yaounde six subdivision?
- How does relevant content promote quality education in Yaounde six subdivision?
- How does project-based learning affect quality education in Yaounde six subdivision?

1.9 Hypothesis

A hypothesis is a tentative answer or statement drawn from knowledge and theory which is used as a sign post for the investigation of facts and phenomenon that are yet unknown. It is an intelligent guess, supposition, inference or propositional statement and generalization to some existing facts in a given area of research. The following hypotheses were formulated to guide the attainment of the aim of this study.

General Hypothesis

- Ho - There is no significant relationship between Curriculum Integration and quality education in Cameroon Primary Schools..

- Ha - There is a significant relationship between Curriculum integration and quality education in Cameroon Primary Schools.

Specific Hypotheses

- Ho - There is no significant relationship between integrated theme learning and quality education in Yaoundé VI subdivision.
- Ha - There is a relationship between integrated theme learning and quality education in the Yaoundé VI subdivision.
- Ho - There is no significant relationship between relevant content and quality education in Yaoundé VI subdivision.
- Ha - There is a significant relationship between relevant content and quality education in Yaoundé VI subdivision.
- Ho - There is no significant relationship between project-based learning and quality education in Yaoundé VI subdivision.
- Ha - There is a significant relationship between project-based learning and quality education in Yaoundé VI subdivision.

1.10 Scope of the study

This work is limited to curriculum integration, its effects and consequences on education in the 21st century for personal/human and environmental growth of the child. Since the main aim of education is human fulfilment, preparation for the world of work and contributing to social change/progress (Cahtty,2002). The educational orientation here is transformational (a constructionist approach). That is, an orientation concerned with learners interpreting and reinterpreting their sense with flexibility in classroom setting. Integration is viewed as a curriculum design (Bean, 1993/1997; Palmer, 1991, p.59).

The research is carried out in the center region of Cameroon precisely in Yaounde VI subdivision. The study is limited to this area because of its nearness/proximity with the researcher and the nature of data (primary data) which required the administration of questionnaires and classroom observation. This took quite some time.

1.11 Significance of the study

Considering the national and international arguments on qualitative education stated in working documents such as the 1998 law on educational orientation and the sustainable development goals especially no 4 which calls for equitable quality education by the Cameroon government in the school sector. The findings of this study will be benefiting to:

To the future researchers: The findings of this study may be helpful to other researchers who may like to pursue further research on the effects of curriculum integration on education and innovative strategies to ease teacher implementation and understanding of the concept for the purpose of adapting education to socio-economic and political changes in the world today. It will provide updates of literature on quality assurance and integration techniques through varied strategies for the achievement of educational aims in the 21st century.

To the state/stakeholders and curriculum planners: Apart from adding on knowledge and literature on curriculum integration and quality education, the findings may be beneficial to the Cameroon education sector (CES) since it may serve as framework for planning, reorganizing and providing training and development programs for the present and future curriculum for modification through conferences, seminars and workshops and innovative planning strategies to meet the changing needs of learners driven for societal development by 3035. However, the findings may broaden the skills and knowledge of curriculum experts and educators, which will go a long way to monitor the drive for a professional development in the learner. The findings of the study may also help to understand relevant issues in the context of curriculum integration and how to effectively apply it in the quest to give education a quality in a constantly changing world.

To the teaching staff: it will permit for awareness of the practices embedded in integrated learning thus improving their understanding with necessary teaching approaches needed to render teaching/learning equitable and qualitative.

To the school administration, the study will offer guidelines for school management on factors that hinder quality. Schools will be exposed to the importance of pre and in-service training to boost teacher knowledge and understanding of current practices thus discovering the importance of the school environment on learners' success.

CHAPTER TWO
REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK

This chapter gives a brief account of works that have been carried out in the domain of curriculum integration and quality Education and is consisted of four main parts: The first is the Conceptual framework, the theoretical framework, the empirical review, and finally the contributions of the theoretical and empirical reviews in relation to curriculum integration and quality education. Its critically examines their scopes and the degree of describability that they have attained.

2.1 Conceptual Framework of the study:

The concept of integrated curriculum (IC)

The term integrated curriculum is currently being advocated in the United States of America, France and has gained grounds in the Cameroonian Education Sector as a hands-on strategy to cater for the problems facing education in the 21st century. Due to the increasing demand for quality in education, integrated curriculum has permeated the professional literature with stakeholders, education institutions and educators advocating its adoption and use in schools as a remedy to most of the curriculum problems confronting education. The Ministry of Basic Education in collaboration with UNESCO for example has championed the design and use of a curriculum that is integrative in nature as its contribution to the changing demands of education in the country (MINEDUB, 2018). An integrated curriculum argument stands along curricula by intermixing elements of subjects that are normally combined (Loepp, 1999). This approach draws on the roots of the word integration, which is " to integrate" (to make whole) and focuses on its benefits, a process that involves helping students make links between disciplines and their real world. Most advocates of integrated curriculum haved based their arguments on some fundamental beliefs supported by positions taken by Dewey (1916), Kirkpatrick (1918), Oberholtzer (1937) Squires (1972), Vars (1969, 1987) and Bean (1993). These advocates affirm that curriculum integration is precipitated by the following practices:

- Geniune learning takes place as students are engage in meaningful and purposeful activities.

- The most significant activities are those which are most directly related to the students' needs/interests, Knowledge in the real world is not applied in bits and pieces but in an integrative fashion.

- Individuals need to know how to learn and how to think and should not be receptacle for facts, Subject matter is a means not a goal

- Teachers and students need to work co-operatively in the educative process to ensure successful progress. This entails negotiating the Curriculum.

- Knowledge is growing exponentially and changing rapidly and is no longer static and conquerable

- Technology is changing access to information, defying lock-steps, and sequential predetermined steps in the learning process.

These beliefs are obvious practices of any integrated learning program. However, in an attempt to make simple the notion and to help the practicing teachers, different authors have laid down guidelines for integrated curriculum through the use of models. These models were designed to explain the various stages of integration in learning and makes easy the concerns educators have to blend content and/or create 'seamless' curricula. Robin Fogarty (1991) in "***the mindful school: How to integrate the curriculum"*** has identified ten models of curriculum integration ranging from fragmented disciplines (traditional) approach to a completely networked approach to curriculum planning. Within the framework of Fogarty's continuum, she identifies eight other models of curriculum integration which include: connected, nested, sequenced, shared, webbed, threaded, integrated and immersed.

At the end of her continuum is her notion of "networked integration" which requires learners to reorganize relationships of ideas within and between separate disciplines as well as ideas and learning strategies within and between learners. Learners at this level are proactive in the learning process and initiate their own searches for information, skills and concepts while depending on experts and other learners as sources of their own learning.

Jacobs (1989) has also defined curriculum options for an integrated learning program by establishing five options from a discipline-based to complete program integration. They exist some degree of integration between the two ends of her curriculum options. These include the following:

1 **Parallel disciplines**: The discipline maintain themselves as separate entities; however, teachers attempt to sequence topics such that related ideas are taught concurrently within the various disciplines – This is similar to Fogarty's sequence model.

2 Multidisciplinary: In this category, related disciplines are brought together in a formal way for analysis and study (humanitieýs, fine arts or political history). This form of integration permits for the creation of new courses to be taught by finding interconnectedness between existing disciplines.

3 Interdisciplinary: Special units /courses of study are constructed to bring together all disciplines within the school curriculum. These units of study are however designed around themes, ideas or issues which emerge from the regular curriculum and are taught for a given period of time (two weeks, a month, a semester) determined by the teachers. Consequently, the units do not supplant the existing disciplines because they are complementary to them.

4 Integrated days: a theme base-full-day program with focus on students' needs/interests. Base on the **British Infant School Movement of The 1960s**this model is frequently advocated as a viable alternative to curriculum structure in the early childhood programs.

5 Complete integrations: Here, students determine their curriculum out of their life experiences, needs and interests. The program at New College in Sarasota, Florida for example allows each student's curriculum to consist of courses and activities deemed most appropriate for the goals established by the students. The student is therefore self-motivated, independent and goal- oriented learner.

Jacob's view on curriculum integration is centred on what happens specifically with respect to the disciplines that is, do the disciplines remain as entities taught in regular time frame? Or Are the boundaries broached for new time frames to better explore learning possibilities? Her options therefore, are focused on the organizational pattern of the curriculum, less concerned with how the curriculum is taught whereas Fogarty's models were focused on the how rather than the organization of the curriculum.

Drake (1993) uses multidisciplinary, interdisciplinary and trans disciplinary to describe the framework for planning an integrated curriculum. In her agenda, multidisciplinary means that same topic or theme is addressed by each of the separate disciplines, thus retaining the integrity of the various disciplines. Interdisciplinary on the other hand is defined by identifying specific skills, processes or ideas which are common to all disciplines. Most of Drake's suggestions are focused on "learning how to learn" as an organizing factor for curriculum planning. In her transdisciplinary approach, the curriculum planning is a life-centred strategy

and knowledge is examined as it appears in the real world. The content to be learned that notwithstanding, is determined by the theme and the express interest /needs of the students rather than predetermined by some set of curriculum objectives. They develop personally relevant pedagogy as they apply what they have learned in real life through project-based learning and inquiry based learning (Allagani, 2003; Drake & Burns, 2004; Kurt &Pehlivan, 2013; and Loepp, 1999)

In addition to the definitions offered by Fogarty, Jacobs and Drake; Vars (1987) uses correlation, fusion and core to describe integrated curriculum while Stevenson & Car (1993) prefers to use integrated studies and Maurer (1994) terms it to be a co-related (resequencing content from different disciplines to 'match'), multidisciplinary (creation of a new course which blends content from other disciplines), interdisciplinary (organizing content around broad themes) and integrated day (an extensive structuring of the curriculum). Another term cross-disciplinary has been used usually in conjunction with teaching reading, writing, and thinking skills across disciplines. The curriculum domain is therefore descriptive of the ways to plan and organized it in order to make it meaningful in creating a connection with what is happening in the real world. Learners are therefore expected to see a connection between what they learn in school and what information, skills and knowledge they need in their actual world.

According to Loepp (1999, p.21), successful curriculum integration should be relevant, standard-based and meaningful for students. The curriculum should be explorative to challenge students to solving real world problems. He continues to state that integration can result in greater intellectual curiosity, improve attitudes towards schooling, enhanced problem solving and higher achievement. When students have the opportunity to focus on problems that are worth solving (are relevant, standard-based and real) they are motivated to learn (Drake & Burns, 2004). Within this agenda, Bennet, Swanson, Schaefer & Falbe (2016) highlights three areas - literacy, personalized learning, problem-based and project-based learning as models for the 21st century curriculum integration.

A number of studies in the science of education provide some recent critical review of the literature on curriculum integration. Studies such as the Rennie, Venville and Wallace (2012a) and Rennie, Venville and Wallace (2012b) explores the value of STEM integration, especially in the line of policy makers to follow the international trend towards greater emphasis on the STEM disciplines. These efforts are orientated in varying degrees of scope, intensity and time frames to make students connect what they are learning in school and in their daily life.

The role of the teacher tends to be that of a facilitator, co-planner and co-learner, along with some combination of being a specialist and a generalist. However, the intensity of integration range from a moderate level all the to a comprehensive paradigm shift as assessment strategies can change, evolving into a combination of traditional and authentic assessments with activities striving various degrees for the integration of different disciplines which can be applied in the real-world context (Drake & Burns, 2004).

Loepp (1999, p. 25)) predicted that "the topic of integrated curriculum is destined to receive a lot of attention soon." In an ERA of curriculum reconstruction therefore, considerable attention is given to curriculum integration (Davison, Miller & Metheny, 1995), especially in mathematics, science and technology. This strategy has been advocated by the Cameroonian BASIC Education Sector as a hands-on strategy to making its curricula more relevant and standard based as it permits the development of life skills, knowledge, attitudes and aptitudes needed by learners in the 21st century (see the National Core Skills Frame work) thus enhancing human social development of the country to suit the objective of SND30 and the global SDGs. This is because the Education children receive is critical to genuine learning and human development. It is therefore, necessary to hinge on the curriculum features of integrated curricula that are time bound.

Curriculum Features of Integrated Curricula

These features are arguably the most important entities in the integration pyramid purposed to lay down in simple terms what concerns integrated learning. These are the combined efforts of the views and opinions presented in the aforementioned paragraphs.

1. **Holistic learning:**

Subject integration base on the research of the human brain suggests that the best way to help children to learn is to make connections. (Cromwell, 1989; Caine & Caine, 1991; Brooks & Brooks, 1993), Miller (1993) assert that children would easily build up their knowledge of a topic or a concept by making links to other content or concepts, particularly their relationship and applications. Integration of subjects or topics may be able to help children to learn for understanding (CDC, 1994). The holistic feature of a curriculum is the extent to which a curriculum makes links between knowledge,content/concepts and helps children to understand the interconnections among topics, themes or disciplines in a cohesive manner. Summarily, this feature involves:

- Helping pupils to better understand the interconnectedness among concepts and contents.
- Easily encompassing subject matter across disciplines or topics
- Making learning more cohesive and easily integrate some topics to form themes.

2. Relevancy to learners' life:

Many educators (Jacobs, 1989; Shoemaker, 1989) have argued that the content of school subjects should be relevant to learners' real world experiences because pupils would be more interested in the content that is meaningful to their daily life. Integration would make the content more relevant to pupil's daily life and learners would hence be better motivated. The curriculum documents by (CDC, 1994; CDC, 1997) emphasized the provision for daily examples which are relevant to pupils' lives. Curriculum developers hope that pupils would find the content relevant. This study adopted a definition of "relevancy" a feature of the curriculum as the extent to which a curriculum is related to pupils' daily life, sustains pupils' motivation and interests; caters for the needs of individual pupils and helps pupils capitalize their own experiences. This feature therefore, involves:

- Making pupils find learning more relevant to life
- Being flexible to cater for the needs of individual pupils with varied abilities and to better understand pupil's interests in learning.

3. Development of problem-solving skills:

Educators (Driver & Bell, 1986; Driver, 1990; Mestre & Lochhead, 1990) have asserted that those academically able students could perform well in examinations but they lacked problem-solving skills for practical applications. The emphasis is on whether classroom activities could effectively provide "minds-on" and "hands-on" learning processes for pupils (CDC, 1994). It recommends teachers to adopt more inquiry investigations, problem solving methods, and cooperative group learning activities (CDC, 1997). A working definition for the feature "problem-solving" is thus the extent to which a curriculum develops pupils' thinking and hands-on experiences in solving real-world problems, and provides them with opportunities to apply what they have learned. This feature is mainly concerned with:

- giving pupils more opportunities to learn to solve problems
- developing critical thinking skills
- enhancing minds-on learning and opportunities to apply knowledge

4. **Science-technology-society (STS) approach**:

STS education is a movement in the science of education which is increasingly adopted in North America early in the 1980s. The National Science Teachers Association (NSTA) defines STS as "the teaching and learning of science and technology in the context of human experience" (NSTA, 1990, p.47). According to Solomon (1993), an STS approach focuses on students' understanding of the environmental threats to the quality of life as well as of the fallible nature of science. It also focuses on the economic and industrial aspects of technology. In Hong Kong, the Curriculum facilitates STS education through the integration of three subjects: Primary Science, Social Studies and Health Education (Fung, 1994). The STS approach is the extent to which a curriculum helps pupils understand the scope and limitations of science for resolving societal and environmental issues and the interaction of science and technology in our society, to cope with the problems of the society from multiple perspectives and in a positive manner. This last category has to do with:

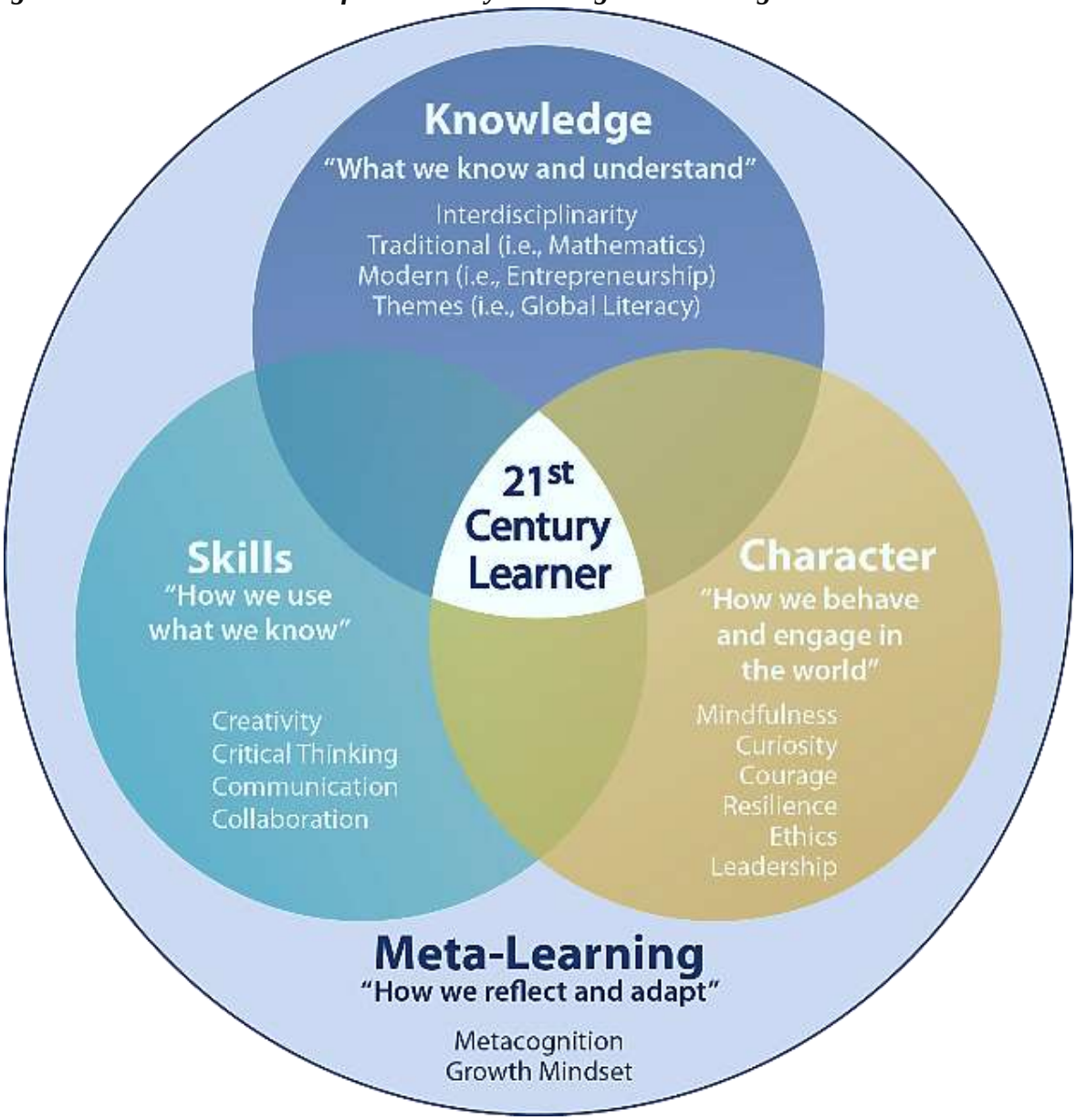
- Helping pupils understand how science solves current societal problems
- helping them to understand the environment around us
- helping them to understand the impact of technology in our society
- helping them to look and solve problems from multiple perspectives
- Helping them to cope with the demands of changing society in positive, objective and responsible fashions.

How to Integrate the Curriculum?

The 21st century skills (communication, creativity, critical thinking and collaboration) can be integrated in the teaching/learning process. These"4 Cs" serve as a guage to prepare the students by:

- Let the students lead the learning process. Learning takes place best in environments where students are empowered to learn.
- Create an inquiry based classroom environment where students ask questions and find out the means to answer them.
- Encourage collaboration. This teaches the learners how to achieve goals together.
- Developing critical thinking skills and encouraging creativity (See figure 3).

Figure 3 : Four dimensions of 21st century teaching and learning



Source: Center for Curriculum Redesign

The concept of quality in education (QE)

During the past decades, much has been done globally to provide quality Basic Education for children an obligation for the convention on the Right of the Child. In all aspects of the school and its surrounding educational community, the right of the whole child and all children, to survival, protection, development and participation are at the centre. This means that focus is on learning which strengthens the capacities of children to act progressively on their own through the acquisition of relevant knowledge, useful skills and appropriate attitudes; which creates and helps them create for themselves and others places of safty, security and healthy interaction (Bernard, 1999)

Many definitions of quality in education exist thus testifying the complexity and multifaceted nature of the concept. The terms efficiency, effectiveness, quality and equity have been used synonymously when referring to quality in education (Adams, 1993). There is considerable consensus around the basic dimensions of quality education. According to UNESCO (2000), quality education includes:

1 Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities

2 enviroments that are healthy, safe, protective and gender sensitive and provide adequate resources and facilities

3 Content that is reflected in the relevant curricula and materials for the acquisition of basic skills especially in the areas of literacy, numeracy and skills for life and Knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace

4 Processes through trained teachers use child-centred teaching approaches in well-manage classrooms and schools and skillful assessment to facilitate learning and reduce disparities

5 Outcomes that encompass knowledge, skills and attitudes and are linked to national goals for education and positive participation in society.

This definition permits an understanding of education as a complex system embedded in a political, cultural and economic context and takes in account the global and international influences that propel the discussion of quality education (Motala, 2000/ Pipho, 2000). However, establishing a contextualized understanding of quality means involving relevant stakeholders, key stakeholders often have different views and meaning of quality education (Motala, 2000; Benolie, O'Gara &Miske, 1999). Since each of us judges the school system interms of the final goals that we set for our children, community and ourselves (Beeby, 1966). Systems that embrace change through data generation use and self-assessment are more likely to offer quality education to students (Glasser, 1990). In this agender, continuous assessment can focus on all or any dimension of system quality referred to as the dimensions of quality in education as discussed above.

In a girl's point of view, this form the basis against which girls are often fared poorly to emphasis on adequate number of schools, books and other didactic materials, trained, qualified teachers and the number of children who finish school. It moves beyond this to consider what

goes inside and outside of school and encompasses education for human security and community development and for National progress. (UNICEF, 2002).

Many things have been learned about education since 1990. However, four lessons stand out: 1 Access to education of poor quality is tantamount to no success at all; 2 the education children receive is critical to genuine learning and human development; 3 qualities are influenced by what goes on in the classroom and beyond; 4 educations for all cannot be achieved while gender discrimination, the greatest obstacle to educational achievement persists (UNICEF, 2002).

The concept of integrated theme learning (ITL)

Integrated themes learning is the foundation on which all learning activities for a defined period of time take place (MINEDUB). "Theme-based (constructivist) learning is a classroom pedagogy based on opened-ended themes that invite children to develop their own projects within a theme" (Ber, 2008). To Home, the constructivist learning environment emphasis on learning by designing, creating, programming, by sharing with community and provide opportunity for modeling useful life long habits. "Through this process children develop creativity, critical thinking and collaborative skills and become active participants in their own learning process (Ber, 2002). Theme-based learning is a popular way to organize the curriculum in many primary schools. It involves the children learning through a central topic. The theme could have strong links to the subjects. For example: a science based theme could be minibeasts or plants. In theme based teaching /learning, thematic units are vehicles for teaching a range of skills and contents by integrating curriculum areas around a topic.

This method of teaching links curriculum strands and capitalizes in children's interests, creating a sense of purpose and community within the classroom.

Importance of integrated theme learning

- It builds on learner's interests, life experience, attitudes, skills and knowledge are developed.

- Through theme based learning, inquiry and communication are activated by the desire to know more leading to enthusiastic participation in the leaning process. The themes run through everything that happens in the classroom and acts as a connecting thread for pupils and teachers.

In order to make learning relevant in the primary sector, MINEDUB (2018) has identified eight integrated learning themes to develop the skills necessary for a harmonious integration of learners into the society. See table 1below

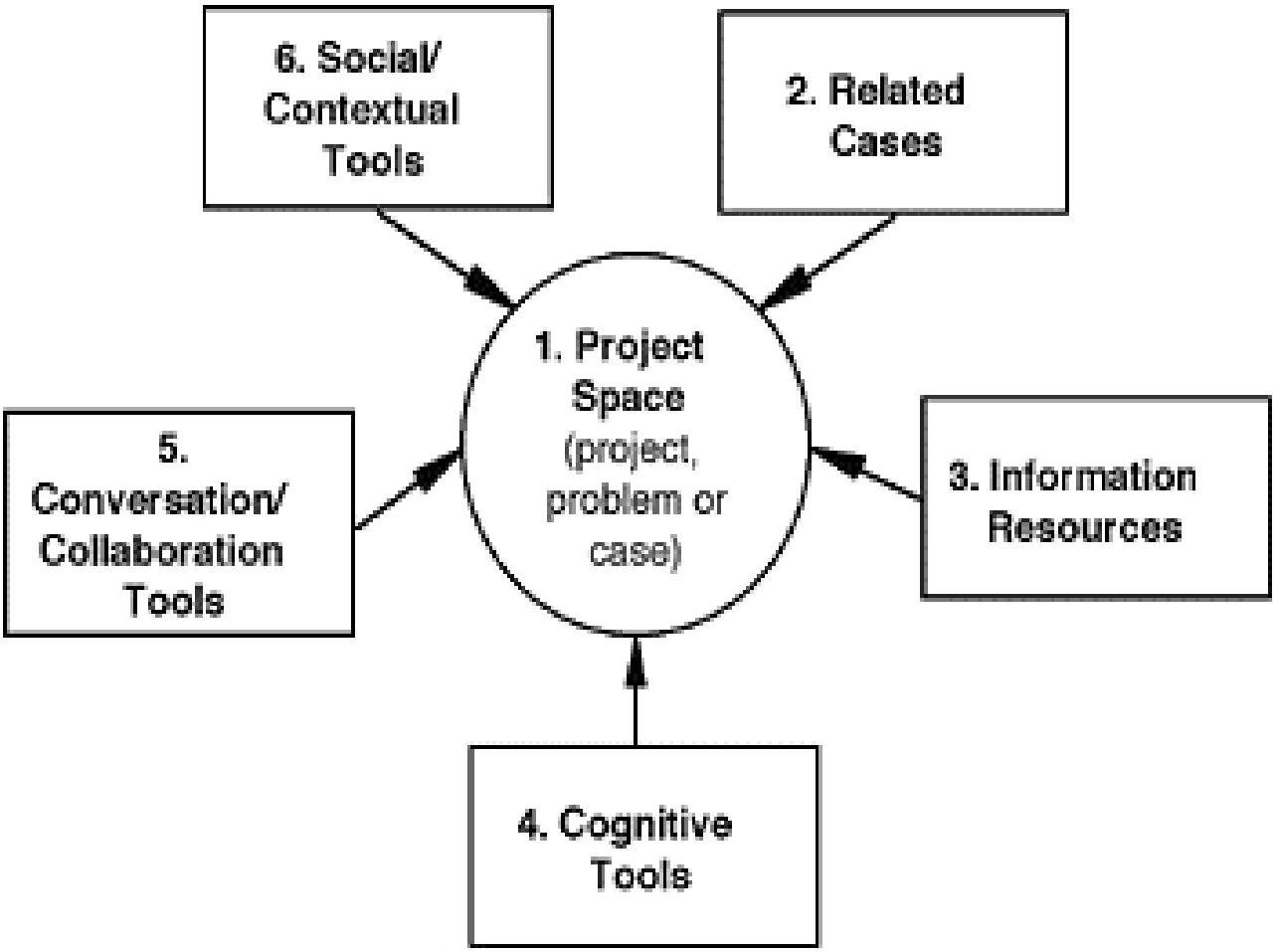
Table 1 : Integrated learning themes in the primary school

Level 1	**Level 2**	**Level 3**
The home	The home	Nature
The village/town	The village	The village /town
The school	The school	The school
Occupations	Occupations	Occupations
Travelling	Travelling	Travelling
Health	Health	Health
Games	Games	Sports/leisure
Communication	Communication	The universe/space

So**u**rce: Cameroon primary school curricula - English subsystem

Research by Piaget (1969), Vygotsky (1962) and Bruner (1960) Supports integrated approach to teaching and learning and states that learning is a highly integrated process which must be separated in domains or traditional academic disciplines. Children learn by active engagement with the learning environment and through social engagement with other human beings. "Multiple complex and concrete experience are essential for meaningful learning and teaching" (Hurley & Blake, 2008). Integrated theme learning (constructivist learning) is illustrated by the learning design model in figure 4 below.

Figure 4: constructivist approach diagram



Source: constructivist approach (diagram)

The constructivists present the fundamentals of project-based learning. This process entails integrated themes that have been posited to make teaching and learning lighter in primary schools. Having observed ITL as inevitable element in integrated curriculum, our next concern is the concept of relevant content.

The concept of relevant content (RC)

Content usefulness refers to content's ability to help users make decisions or progress toward their goals. Content Relevance helps students see the value of what there are learning. Content must be challenging for them to develop advanced skills and knowledge needed for equity. It increases students' self-esteem, sense of efficacy, empowerment and likelihood to engage in prosaically behaviors. This concept is all about «relevant, meaningful activities that both engage students emotionally and connect with what they already know or build neural connections and long-term memory storage" (Briggs, 2014). By establishing relevance,

students are provided with an important opportunity to relate course subject matter to the world around them.

Relevance is a key factor in providing learning context in which students construct their own understanding of the course material. According to Keller (1983) "Relevant Content refers to student's perception of the way in which course content meets their personal and or professional needs, interest and goals." Instructors often create and use content related messages to maintain and build connection with students, capture their interest by explaining how course content relates to their future and how concepts taught in class can be used in our daily lives and building on existing knowledge (Keller, 1987). Content relevance has tremendous outcomes such as students' motivation and empowerment. There are four methods of establishing relevance these are:

- Discussing how the theory can be applied in practice
- making links to local cases
- relating subject matter to everyday applications and
- Discussing and finding applications in current newsworthy issues and events.

Students are recommended to discuss for each topic covered why it is worth learning, how it operates in real world, why it makes sense and how it connects to things students already know (Wieman, 2007).

One way to approach content relevance is by the ARCS model as you create Class lessons and course curriculum (Chesebro & Wanzer, 2006; Keller, 1987). The four categories in this model are: a) attention, how well the instructor's message gains students interest. Example: Communication is the number one skill employers want in their workforce. b) Relevance in this context refers to the extent to which content meets students' goals. Example: Discussing on family communication patterns may help students understand how to approach conversations with their parents or siblings. c) Confidence conveys that students have control over their academic success. d) Satisfaction addresses the extent of intrinsic and extrinsic motivation by students to engage or repeat the behavior suggested in the course content. Example: If students learn about conflict management strategies then apply it to manage a roommate conflict. This could be used subsequently.

Another approach to content relevance is by the measurement of training impact developed by Kirkpatrick (1996). His presentation in pyramid format carries the various steps

of learning outcomes expected on the job. These include: reaction, learning, behavior and results. The five fundamental principles (Kirkpatrick fundamental principles) guiding this model are: the end is the beginning (1), set clear expectations (2), business partnership (3), value must be created before it can be demonstrated (4) and chain of evidence and results demonstrates value (5). Having elaborated the concept of RC, it is necessary to articulate on Project-based learning.

The concept of project-based learning (PBL)

PBL is a dynamic approach to teaching in which students explore real-world problems and challenges, simultaneously developing 21st century skills while working in small collaborative groups (Stivers, 2010). It is a pragmatic approach in which learners create their own knowledge through learning activities build around intellectual inquiries and high degree of engagement with meaningful tasks. Projects are designed to allow students with a variety of learning styles to demonstrate their acquired knowledge, skills and attitudes. It is an effective way of connecting classroom activities to real-world through the process of integrating the four broad-based competences in learner's life. "It is an investigative or discovery type of learning (MINEDUB, 2018). This pedagogic approach is a research-based learning method wherein together with the learner's questions are asked, investigated and solutions proposed and presented.

How to implement PBL

According to MINEDUB (2018), PBL can be implemented in the following ways:

1) Identify a problem; this has to be done with the learners in order to give them ownership of the product.

2) Identify all parts (beginning, progression and culminating event). This process involves learning across the curriculum.

3) Brainstorming with students about the progression and jotting down points about the process. This enables actors to see what is and what is not working.

4) Discuss with learners; learners are skillfully guided in class and at project sites towards its realization

5) Assign a role to every learner. No learner should be left behind. Assigning roles empowers them and help build the spirit of togetherness, initiative, creativity and responsibility

6) Discuss the progress with individual learners/groups and whole class. This stimulates anxiousness to complete it.

PBL has gained greater control in the classroom as researchers have documented what teachers have long understood; students become more engaged to learn when they have the chance to dig into complex, challenging and sometimes even messy problems that closely resembles real life. "It goes beyond generating student's interest. Well-designed project encourages active inquiry and higher level thinking (Thomas, 1998). Students' abilities to acquire new understanding are enhanced when they are «connected to meaningful problem-solving activities and when students are helped to understand why, when and how those facts and skills are relevant (Branford, Brown & Conking, 2000, p. 23). It teaches students not just content but important skills in way that students have to be able to function like adults in our society by building on their communication/ presentation skills, organization /time management skills, research/inquiry skills, self-assessment/reflection skills, group participation/leadership skills and critical thinking skills.

Characteristics of PBL

- The teachers take on the role of a facilitator rather than a leader
- The classroom has an atmosphere that tolerate errors and change
- Students regularly reflect on what they are doing
- Students learn to work independently and take responsibility when asked to make a choice
- Provides opportunities for students to examine the task from different perspectives using a variety of resources
- requires critical thinking, problem-solving, collaboration and other forms of communication
- Creates the need for new contents and skills

PBL permits students to reflect upon their own ideas and opinions and make decisions in general.

Benefits or Importance of PBL

PBL offers a wide range of benefits to both students and teachers. A growing body of academic research supports the use of project-based learning in schools to engage students, cut

absenteeism, boost cooperative learning skills and improve academic performance (George Lucas Education Foundation, 2001). These benefits to students include the following:

- Increases attendance, growth in self-reliance and improves attitudes toward learning (Thomas, 2000)
- Access to broader range of learning opportunities in the classroom thus, providing a strategy for engaging culturally diversed learners (Raislback, 2002)
- Opportunities to develop complex skills such as high order thinking, problem-solving, collaboration and communication (SRI, 2000)

According to MINEDUB (2018), other benefits of PBL are as follows:

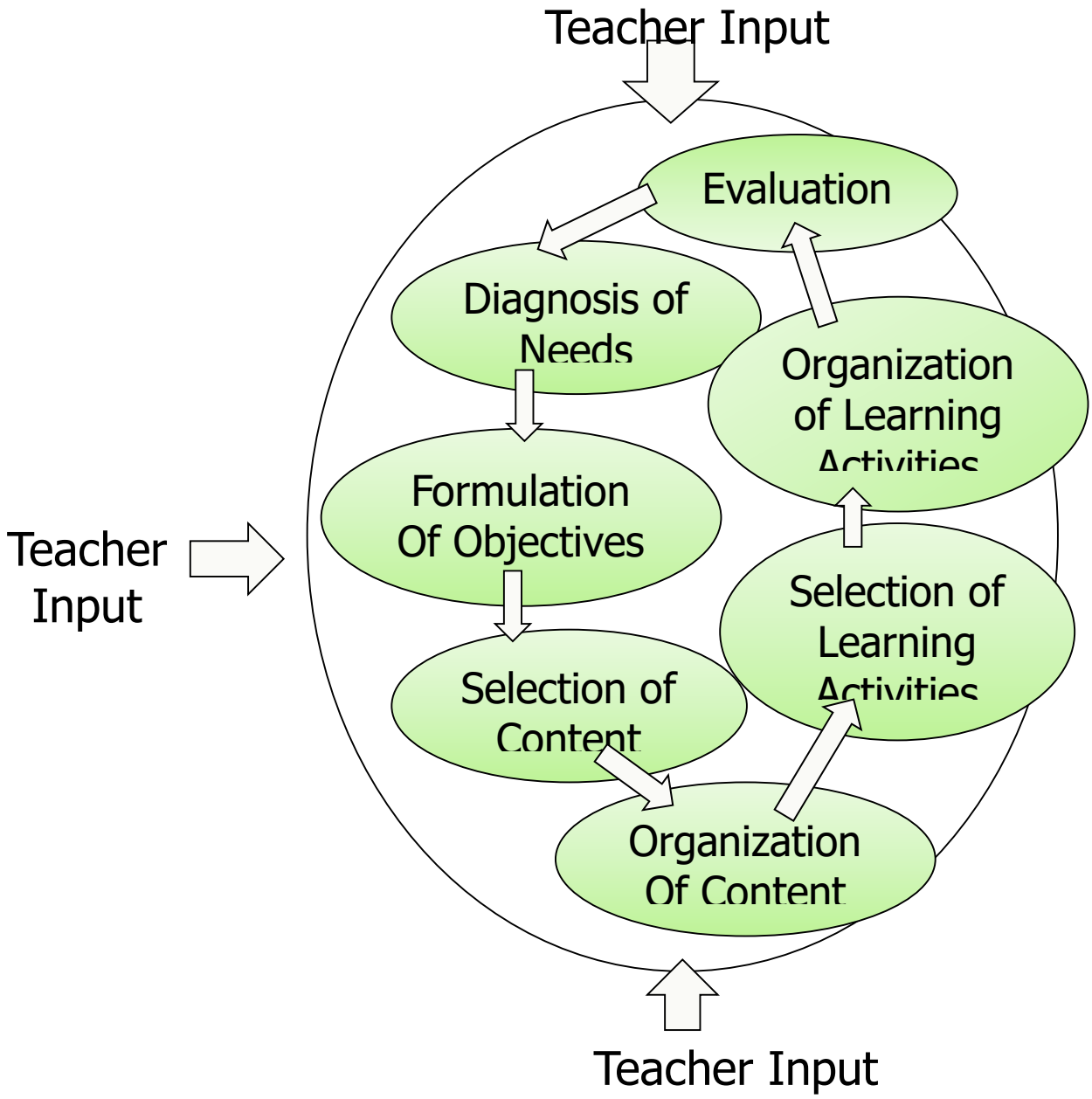
- Promotes lifelong learning skills
- Enhances logical thinking
- Promotes team spirit and hard work
- Promotes entrepreneurial skills
- Creates responsible attitudes in learners
- Renders learning practical
- Students are motivated through learning by doing
- Develop problem-solving skills
- situates learning in real life situations
- promotes bonding and integration

Having elaborated the pragmatic approach to learning modes of implementation, its characteristics and importance in making learning meaningful when connected with the aforementioned concepts. The next challenge is an overview of a facilitator model deemed necessary for integrated curriculum strategies.

Taba (1962) Instructional strategies model

Taba proposed 7 seven steps to her grass-root model (instructional strategies) in which the teacher would have a major input throughout the curriculum development process. Consider figure 5 below.

Figure 4: Curriculum Development Process from a Grass Root Approach



Source: Taba's Curriculum Development Model

Since Curriculum development is the process of planning teaching/learning activities intended to bring about certain change in learners behaviour and the assessment of the extent which these changes have taken place. The curriculum process therefore, is that which leads to the creating, implementing and the evaluation of the curriculum**. Taba et al. (1962)** suggests that need assessment, planning, development, implementation and evaluation are stages involved in the curriculum development process.

This theoretical conceptualization is prominent in the 21st century instructional plans as education is required equitable quality than ever before. MINEDUB in collaboration with UNESCO and other stakeholders undertook to developed the present Primary School curriculum in a 5-stage process giving raise to the ‘’ADDIE model’’ (MINEDUB, 2018). This is a thorough application of Taba et al. (1962)

One of the basic assumptions of curriculum development is that a sound educational program should be based on the analysis of learners needs, the procedures used to collect information about learners needs are called Need Analysis. It emerged in the 1960s as part of the system approach to curriculum development and was part of the prevalent effects of educational accountability **(**Stufflebean, McCormick, Brinkerhoff and Nelson 1985). According to **Iwai et al. (1999)** the term ‘’needs assessment refers to the activities that are involved in collecting information that could serve as the basis for developing the curriculum to meet the needs of a group of learners.’’ It is worthy to mention here that globalisation has severely impacted contemporary instructional processes. Increasingly, our society is rocked by various challenges such as advancing technologies, changing family relationships, violence in communities, exclusion, intolerance and identity crisis. These issues constitute a serious hurdle to pedagogues who must derive appropriate strategies to handle them. Therefore, educators and parents are called upon to embrace this important change and to work in harmony. Learners are also expected to acquire necessary life skills such as autonomy, honesty, adaptability to technological changes, respect for self, respect for others and respect for institutions, as well as the 21st century skills: collaborations, teamwork, creativity, problem solving and critical thinking for effective lifelong learning (MINEDUB, 2018).

The National Core Skills Frame Work, a strategy developed from the International, national and continental instruments viewed above form the springboard of the Cameroonian Educational vision for Primary School pupils across the national territory.

2.2 Theoretical Framework of the study

This work is going to be, first and foremost explorative in nature. It is necessary therefore to state in this section some theoretical assumptions that have been posited by researchers to govern the field of Education and learning. What has motivated the choice to blend the progressivist and constructivist tradition is the depth with which it seeks to understand the learner and the philosophy of education in conformity with a constantly changing world.

These could be used in describing, planning and developing learning activities with regard to political and socio economic development in Cameroon.

John Dewey's Progressivism Theory (1938)

As a constituent part of 'New Education,' progressivism is based on pragmatism and constituted a revolution in American Education with an outstanding specificity. Other orientations that have profiled in the second half of the century (humanism, social meliorism and social efficiency) have emerged as reactions reported to it. It is a reaction to the traditional school in the United States of America and sought to establish an educational system adjusted to the pace of American societal development. (Radu1, 2011) Progressivism was developed by Dewey's Pedagogic theory centred on pragmatism and its variant instrumentalism.

Dewey's work is one of the most profound and comprehensive theoretical synthesis ever developed as he made major contributions to all areas: In philosophy (pragmatism) in pedagogy (progressivism) in logic (instrumentalism) in psychology (functionalism) in aesthetics (aesthetic naturalism) in axiology (empiric cognitivism) and more. Progressivism therefore belongs to 'new education,' a Copernican revolution in pedagogy promoting child-centred school. The concept of experience forms the basis of Dewey's theory of instruction though his pedagogic views are not only poised on this philosophical concept but also on the social, economic and cultural realities of American society: American democracy, industrial revolution and the development of modern science.

Educational process to the American pedagogues' opinion is comprised of two aspects: the psychological and the sociological. He therefore considers the psychological aspect to be fundamental as the learning capacities, which should continue, in adult life without disappearing after childhood represents a valuable element which is developed in the concept of permanent education. Growth in John Dewey's view is represented by the ability of learning, forming habits and readjusting activities to new conditions. In his experimental school in Chicago for example, Education was focused on the child's needs as the student "learned by doing." (This authentic knowledge could be achieved only through direct experience and active participation). The progressivists stood against the idea that the personality of the teacher should be subordinated to methods, however, Dewey does not deny the need for some targeting methods since it is necessary to study activities that leads to success as well as those that lead to failure. From this, a general method of instruction can be delineated thus giving rise to the method of solving problems as thinking is prerequisite for acquiring knowledge and appears in

problematic situations as strategy to overcome difficulty. Using the method of solving problems the progressive educationist stimulates learning through discovery and discourages the accumulation of what is transmitted by others as the method showcases in a way the dispute between learning by effort and learning stimulated by interest.

Learning by effort has proven that positive results are obtained by force of will while learning by interest has demonstrated that work without interest becomes a real drudgery for students and promotes student's intrinsic motivation and spontaneous interest to provide the conditions necessary for undertaking an activity towards fulfilling that desire. This therefore to the progressivists holds that the student mobilizes his/her effort to overcome the obstacles that may occur. Against this background emanates an educational system based on student's freedom to choose amongst subjects of study (see Dewey's theory of interest) This teaching theory opens the way for an educational system which takes into account the particularities of individual learners to stimulate teacher's creativity thus giving school a practical orientation.

A number of American Educationists have contributed to developing the theoretical basis of progressivism. These include people like: John L. Childs, G. Counts, Boyd H. Bode, and William Heard Kilpatrick. Kilpatrick for example, is the initiator of the project method through which one of Dewey's fundamental ideas is put into practice; Learning by solving problems as Kilpatrick established four types of projects (building projects, consumer projects, problem solving projects and exercise projects which leads to the development of life skills and attitudes and abilities).

The general characteristics of the progressivist school include the following: its primary focus was on the child's interest; students are able to choose amongst subjects of study from the curriculum; information on the present and future has a special share and finally, learning is attained by solving problems.

Strengths of the Progressivist theory

- It is a reaction to traditional school and root learning
- It is the most profound and comprehensive theoretical synthesis ever developed as it makes major contributions to all areas (pedagogy, logic, philosophy, psychology, aesthetics and axiology)
- It promotes child centered school as the concept of experience forms it spring board

- Encourages the development of learning capacities which should continue in adult life without disappearing after childhood represents a valuable element which is developed in the concept of permanent education.
- Using the method of solving problems the progressive educationist stimulates learning through discovery and discourages the accumulation of what is transmitted by others as the method showcases in a way the dispute between learning by effort and learning stimulated by interest.
- This teaching theory opens the way for an educational system which takes into account the particularities of individual learners to stimulate teacher's creativity thus giving school a practical orientation.
- Learning by doing is an essential part of this educational theory as the students actually learns how to learn.

Weaknesses of the theory

- Much focus is given to the learner and learning is achieved only through discovery to discourage the accumulation of what is transmitted by others.
- The student is left to mobilize his/ her effort to overcome difficulty this at times may be too challenging for them.

Relevance to the study

Curriculum integration for quality education is concerned with the acquisition of European Key Competences by learners for a significant insertion in the world of work and not acute memorization of facts in a traditionally splintered setting. This can be achieved only through direct experiences permitting the development of the learner in all necessary domains with full participant engagement in **practical acti**vities in line with this.

Learning through discovery is motivational and challenging thus preparing the learner to suit in the job market thus, exposing the assertion of learning to learn by doing and learning by solving problems as Kilpatrick establishes projects to attend this purpose (see Kirkpatrick four types of projects). This is an important element in integration learning.

Constructivism/Constructionism (Jean Piaget, 1896 - 1980)

Philosophers like Piaget, Vygotsky and Perkins suggest that constructivism seeks to solve the problem of traditional teaching and learning (Amineh R. & Asl, H. 2015) The origin of constructivism therefore dates back to the time of Socrates who claimed that teachers and learners should talk with each other to interpret and construct the hidden knowledge by asking questions (Hilav, 1990 cited by in Erden 2001) Gruber & Voneche (1977) also state that constructivism is most probably derived from Piaget's constructivist views (1967) as well as from Bruner's (1996) constructivist description of discovery learning. Furthermore, Perkins (1992) draws out that constructivism has multiple roots in the psychology and philosophy of the century: the development perspective of Piaget (1969) and the emergence of cognitive psychology under the guidance of people like Bruner (1966).

Constructivism therefore is a synthesis of multiple theories diffused into one form and is an assimilation of both behavioral and cognitive ideas. Hoover (19690) lays down a set of principles of the perspectives for constructivism in two major notions which encompasses the idea of constructed knowledge: The first is that learners construct new understanding using their current knowledge (learner's prior knowledge influences their new knowledge) The second maintains that learning is not passive but an active process in which the learners negotiate their understanding in view of their new learning situation… The constructivist stance maintains that learning is a process of constructing meaning. It is how people make sense of their experiences (Merriam & Caffarella 1999, p. 260) Constructivism describes how students can make use of the material and how the material can be taught effectively, the teacher however, considers what the student already knows in order to allow them put their knowledge to practice (Bruner, 1973). There are two major strands of constructivist perspective (Kanselaar, 2002). This include the: (a) constructivist perspective and (b) socio-cultural perspective/social constructivism perspectives. Jean Piaget a Swiss Developmental Psychologist is critical to constructivism (cognitive constructivism) an individualistic perspective through his theory of ''ages and stages'' as components that predicts what children can and cannot understand at different ages as they develop cognitive abilities. Piaget (1977) asserts that learning does not occur passively but rather occurs by active construction of meaning.

Educating with constructivism holds that teachers need to consider the learner's knowledge and allow them therefore to put this knowledge into practice (Mvududu & Thiel Burgess, 2012) Mvududu and Thiel Burgess presents constructivism as one of the leading

educational theory as Phillips (2000) talks about a number of constructivist traditions and proposes that educational constructivism includes a number of variations amongst which the two most popular variants are:

1) Jean Piaget's personal constructivism
2) Lev Vygotsky's social constructivism

Piaget and Inhelder (1969) suggest that discovery is the most important and fundamental basis of learning while Vygotsky (1978) believes that Piaget's emphasis focuses too much on the internal processes of the individuals and considers cognitive development as primarily a function of external factors like culture, historical and social interaction rather of individual construction. He therefore believes that people master their behavior through psychological tools as he introduces language as the most important of these. Bailey & Pransky (2005) confirms to Vygotsky (1978) importance of culture in constructing knowledge.

Cook (1992) suggests the use of negotiation in the curriculum and takes it that, when learners negotiate, ask questions and try to find answers for themselves, what they learn will be more meaningful to them. This curriculum becomes a sense of ownership in the learner for their work as a commitment in learning can occur. Bruner (1992, p.14) supports the idea of negotiating the curriculum as negotiation can mean deliberately planning to invite students to contribute, modify the educational program to permit a real investment in the learning journey and the outcomes. Negotiation also means making explicit and confronting the constraints of learning contexts including the non-negotiable requirements that apply.

Fosnot (1989) views constructivism through four major principles: (1) learning depends on what individuals already know (2) new ideas occur as individuals adapt to change old ones (3) learning involves inventing ideas rather than accumulating a series of facts (4) meaningful learning occurs through rethinking old ideas to arrive new conclusions. Learning in constructivism is therefore represented as a constructive process in which the learner builds an internal illustration of knowledge, personal interpretation of experiences as this representation is often opened to modification and linkages forming the ground on which other knowledge structures are attached. Learning here however, is an active process in which experience has an important role in understanding and grasping the meaning (Christie, 2005).

The Strengths of the Constructivist theories

These theories encourage student centered learning/ teaching. Students through different interactions are expected to create their own understanding. The teachers are seen as mentors and facilitators. Liu (cited in Salema, 2014) points out that active participation of learners gives rise to the acquisition of knowledge/ skills through mental and motor activities encouraging the retention of learning experiences.

The students learn more through collaboration and active participation approach and discussion.

Weaknesses of the theories

Some students could over participate or do the work for others while other may not want to share their ideas, in this case not all the students can contribute wholeheartedly or gain from the group projects or other organized activities. Too much attention is on the learner thus neglecting teacher standards and readiness to adopt to changing educational practices.

Relevance to the study

Curriculum integration is characterized by constructivist's approaches to teaching and learning. It is based on the notion that knowledge/skill acquisition is not transferable from teacher to learners but is as a result of the activities learners encounter in school and out of school individually or in groups (Tuxworth, 2011). Leaning is an active process and students learn by participating, teachers use varied teaching strategies and instructional materials for this purpose. Therefore, the learner should play a pivotal role in learning (piaget, 1970). To him, knowledge construction takes place when experiences are actively assimilated. This is done through discovery (Piaget & Inhelder, 1969).

Education with constructivism holds that teachers need to consider learners knowledge and allow them to put this knowledge into practice (Mvududu & Thiel Burgess, 2012). Consequently, constructivism guides the stakeholders, curriculum makers, evaluator and the implementers to know the different criteria needed for planning, development, implementation and evaluation of the curriculum which reflects current standards and appropriate techniques to do so.

2.3 Empirical Framework of the study

In order to establish the contributions that this work seems to make, some literature related works were consulted. This section deals with various empirical studies grounded on

curriculum integration and its practices in teaching/learning including the elements of quality needed for purposeful learning. However, this study is chained on empirical and experimental basis with a strong emphasis on science, technology, engineering and mathematics (STEM) at the elementary level aimed to develop the necessary knowledge, attitudes and skills (KAS) needed by learners in the 21st century for personal human development and lifelong learning. Design strategies to integrate the curricula based on real life applications is assumed that grounding Science and Mathematics in student's daily life for example will improve their achievements in these courses to provide relevant connections among their component elements (Drake &Burns, 2004).

International concerns surrounding the advancement of STEM education have escalated over the years and shows no signs of abating (English, 2016). This means that the Republic of Cameroon is no exception as educators, policy makers, and business organizations are emphasizing the urgency of STEM skills to meet current and future socio-economic and development challenges. Therefore, national standards for content, professional development and assessment have been developed for mathematics, science and technology education especially in the US (International technology education association, 2000; the National Council of Teachers of Mathematics, 1989, 2000; National Research Council, 1996).

Goldhaber, A.B et al (2021) conducted a study on the "Impact of technology among secondary schools in USA." The aim of the study was to investigate the impact of technology integration on quality education among secondary schools in USA. The study adopted the descriptive research design with a target population made up of principals, teachers and students in secondary schools based in Network. This made use of questionnaires for data collection. The results of the study indicated that technology integration has positive significant influence on quality education among secondary school students in the USA. It founded tha technology in education improves engagement and retention, students became more engaged when ICT is integrated into lessons. The application of technology provides different opportunities to make learning more enjoyable and fun. Integration of information and communication technology (ICT) assists teachers in the global requirements to replace traditional teaching methods with technology based teaching/learning tools. The findings made it clear that ICT in education is considered a key element for improvement and development and recommended the need for schools to adopt ICT in the classroom and the need for government policy implicating the integration of ICT in learning.

Another study by Weathersbee, J.C. (2008). Impact of technology integration on academic performance of Texas school children. Showed considerable benefits of integration in learning. The purpose was to examine the impact of technology integration public schools had on academic performance of students. Data were obtained from Texas education agency. Data measuring the level of technology integration in over 6,654 Texas public schools as well as takes scores of 4th, 8th and 11th graders in the subject areas of reading, math, and science. Four areas technology integration were identified and examined for possible impact on academic performance of public school students. A multitude regression analysis was used to access the impact of the four areas of technology integration on academic performance. The results showed that the overall integration of technology in the classroom impacts the achievements of students in all areas (reading, math, and science). The Research provided valuable information regarding the necessity for integration in teaching and learning in public schools.

Atlantis Press SAR. (2021). Released a study on the "integrated curriculum implementation in education quality improvement." This study considered curriculum as the spearhead in the education improvement which is implemented in learning and affirmed that it is very necessary to improve it continuously. The efforts of students are not heavy because of the dichotomy of the lessons. Integrated curriculum permits students to understand the learning material more completely and perfectly. The objective of the researcher was SDIT cahaga Bangsa Mijen Semarang. Data analysis used the interactive analysis models name: data collection, data reduction, data presentation and drawing conclusions or verifications. Trust level (validity) of the data was done by the techniques of credibility, transferability, dependability and conformity. The results of the observation were teaching skills in the classroom and Class management. Teacher carried out the teaching process well though with some limitations as the facilities and infrastructures are incomplete to support the learning process. According to PAI teachers, the implementation of an integrated curriculum in teaching /learning process can run well because students are more active and creative in the learning process. They easily understand the material presented. The strategies of principals and teachers to improve education are synergized to maximize teacher competences (pedagogic and professional) and principals and teachers always upgrade the world of education.

Alghamdi, A. K. H. (2017) conducted a study on the effects of integrated curriculum on students' achievement in Saudi Arabia. The aim was to examine the effects of an integrated mathematics and science curriculum with life skills application on academic in Saudi Arabian

elementary school. An integrated unit was developed covering the grade 5 sound and light science unit and the perimeter, area, and size mathematics units using practical activities connected to students' everyday lives. The study involved treatment (n=36) and comparison (n = 41) groups of grade 5 students (females) enrolled in a private school in Dhahran city. The comparison group was instructed using a conventional approach involving separate science/Mathematics units and the treatment group was instructed using an integrated unit and two achievement tests for the target science and mathematics units were developed and used in pretest/posttest designs especially t-test to explore the different between the comparison / treatment groups (Sprinthall, 2000). However, the inferential statistics was used and two research questions guided the study: How does an integrated science/Mathematics units based life applications impact the learning achievements of female elementary school students in KAS? What are the weaknesses and strengths of an integrated science/Mathematics units based on life application with regard to learning achievements of female elementary school students in the KAS? The results indicated a statistically significant difference between the treatment and comparison groups. In effect, the students taking the integrated unit received highest scores than those in the comparison group. Therefore, integrated curriculum based on life application improved students in both subjects.

Akareem, H. S. & Hussian, S.S. (2016) conducted a study on "Determinants of education quality: what makes student's perception different? The aim was to identify demographic snd background info of students that differentiated their perception about the quality of higher education. A sample of 432 students was taken from top five private universities of the Bangladesh to evaluate their perception towards dimensions of higher education. A multinomial regression analysis was carried out to identify the characteristics which made their perception of quality higher education dissimilar. The study in two research questions: (1) to what extent do demographic characteristics of student's influence perception of higher education quality? (2) The what extent do current background status of student's influence perception of higher education quality? The results showed that students' perception of higher education quality is heavily influenced by the school (university) they study at, scholarships status, extra-curricular activities, parents' education, age and previous educational success. It was proven that the study environment influences students' perception of quality.

Audrey C. Rule & Manuel T. Barrera, iii (2008) conducted a study in Western United States on Curriculum integration approach to bird adaptations that incorporate technology and thinking skills. This study asserted that the integration of subject areas with technology and

thinking skills is a way to help teachers cope with today's overloaded curriculum and to help students see the connectedness of different curriculum areas. The study compared three authentic approaches to teaching a science unit on bird adaptations for habits that integrate thinking and technological skills: A problem - based approach utilizing the CORT Breathing thinking skills (de Bono, 2000) a thematic approach integrating several subject areas using talents unlimited thinking skills (schilchter & Palmer, 1993) and a process skill-focused using object boxes (Rule, Barrera & Steward, 2004). It used third grade classes of students (No = 60) of mixed abilities and Spanish and English proficiencies from a western rural community who participated in its pre-test intervention posttest study. The teachers and classes were randomly assigned to one of three approaches (experienced educators with 18 years teaching and similar intermediate knowledge of computer). The posttest scores showed that all classes gained knowledge in bird facts and adaptions, descriptive, vocabulary, curiosity, technology, self-efficacy and knowledge of computer applications. The problem based students showed more curiosity (measured by questions generated for a topic related image). The theme based unit excelled in computer application knowledge and the object box students showed largest gains in science knowledge, vocabulary and computer self-effacy. The integration of thinking skills therefore allowed teachers to structure and scaffold learning in all the three approaches. All three approaches exhibited strength along with challenges and were recommended.

Loredana Sofia Tudor (2014) conducted a study on perception of teachers on curriculum integration - Integrated patterns practice. This included: ways of achieving integration, strengths and weaknesses in concepting integration activities and the difficulties in achieving integration. They were a correlation between curriculum content in relelation to curriculum areas (areas where integration is done). The purpose of this study was to identify of primary school teachers' perception on integrated teaching approach in order to achieve a swat analysis to determine its efficiency in terms of integrated primary design. The participants were 38 primary school teachers (men and women) who taught in urban and rural areas in Arges and were invited to take part in a survey at the end of the 2012/2013 academic year. All teachers were degree holders. The data were gathered using self-assessment sheets adapted from integrated approach of curricular content. The self-evaluation activity sheets consisted of items centred teachers: how to integrate, operational design of projection and implementation of integrative education scenario, difficulties met by teachers, curriculum elements relevant in the context of mainstreaming the teaching strength s, weaknesses in teaching, personal reflections for future activities. The results from a hierarchy of integrated activities showed that the

teachers accessed the following characteristics: they endured learning efficiency = 12%, socialized students and favored peers getting to know each other in class = 12, increased students interest towards learning = 12%, developed creative lateral thinking and critical judgment = spirit of class competence and cooperation = 11%, positive learning environment 9%, responsibility = 9%, eliminate teaching routine = 8% favoring creativity = 8%. This was followed by an analysis of the weaknesses of the teaching plan. Another item on the questionnaire required the weaknesses/obstacles in using integrated activities. These were accessed on a scale from 1 to 10 that integration activities are hard to adjust to concrete class activities, according in regard to the following factors: difficulties in teaching from different curricular areas = 18%, alteration of the teaching course = 15%, they frustrated more timid students = 14%, difficulty in achieving the objectives of the syllabuses = 9%, difficulty in adjustment to students' characteristics = 9%, difficulty in adjusting teaching means = 8%, problems in evaluation = 8%, difficulty in structuring and accessibility of teaching content = 6%

To conclude, a number of recent studies in the science of education provide reviews of the literature on the benefits of curriculum integration. These include amongst others: Rennie, Venville and Wallace (2012a) and Rennie, Venville and Wallace (2012b) all efforts to integration are oriented in varying degrees of scope, intensity and time frames towards helping students make connections between what there are learning in school and their daily life. The role of the teacher therefore becomes that of a facilitator, co-planner and co-learner as well as a specialist or generalist.

2.4 Contributions to the Study

As already described in the above-mentioned paragraphs, the contribution of the theoretical/conceptual frameworks and the Empirical reviews to this study has been to offer accurate and up-to-date or purposeful orientation thereby guiding the researcher in the design and stance taken in observing what is currently available in the domains of Curriculum integration and teaching for quality assurance in learners. This review permits for a good knowledge of integration and its relevant trends in the growing anxiety to render education quality and the 21st century skills needed for life-long learning for human and environmental development in line with the aims and objectives of CBA; this include responsible behaviors, knowledge and competencies needed for life. The learner must be mobilized in various disciplines as they interact in the learning process.

The reviews have equally advocated that teachers who teacher are professionals to serve as guides/Facilitators in learning (Hoogveld, 2003 & Sudsomboon, 2010). The teacher therefore, has an active role to play in whatever is transmitted to the pupils. Consequently, is supposed to switch from an expert who translates learning/knowledge to a coaching role, facilitating and guiding the learning process (Biemans et al, 2004).

The importance of the grass-root model/approach to curriculum planning, development/ design, implementation and evaluation also permits a critical input from the teaching staff in the entire education plan. This is supported by the credibility of Kirkpatrick's model of training evaluation for use in any training program. Therefore, teachers/trainers must be adequately equipped with in-depth professional skills backed by pre-service/in-service training, to attending external conferences and workshops that will permit for knowledge on current practices in Educational monitoring in order to fit in as coaches in the learning process. This will mean an effective application of the curriculum “a plan for learning" (Taba, 1962).

The researcher's own contribution through this study therefore, has been to set-up guidelines for integration, quality teaching/learning and effective implementation of the curricular to enrich pedagogical and educational output in the primary sector in Cameroon. All assumptions are backed by the theoretical frameworks that serve as mirror image to this purpose as discussed the in previous sections.

2.5 Summary of Chapter

This research work is based on facts. In order to construct its credibility, the chapter commenced with a review of the various concepts that formed the characteristics of related research questions and hypotheses, the curriculum development process from a grass-root approach, a vivid overview of the theoretical frameworks and their strengths, weaknesses and relevance to the study, the empirical literature review, the contribution of reviewed works to the study and finally the summary of chapter.

CHAPTER THREE
RESEARCH METHODOLOGY

This chapter presents and explains the methods and procedures used in this study. This includes the following: Type of research, research design, area of the study, population of study, sample and Sampling Techniques, sample size, research instrumentation, data collection methods, validity of the instrument, administration of the instrument and the statistical method of analysis.

3.1 Type of Research

The evaluative research is chosen for this study. Also known as program evaluation, it refers to the systematic assessment of the worth, merit of time, money, efforts and resources used in order to achieve a particular goal. It is the need to keep in mind the interest of the stakeholders. The purpose of evaluation is to extract meaningful information from the audience and provide insights to the evaluators, donors, client group, administrators and stakeholders. The feedback of evaluation is perceived useful if it helps in decision-making and its benefits are to gain insight about a program, improve practice, and assess effects and to build capacity. A survey (Cross-sectional) is conducted as the study makes use of questionnaires and observation guides.

3.2 Area of the study

The site for this study is the Mfoundi Division found in the Center Region of the Republic of Cameroon. The Centre Region of Cameroon is comprised of seven subdivisions with a total surface area of about 297km2 with over one million eight hundred and seventeen thousand five hundred and twenty-four (1.817.524) inhabitants. The centre Region is bordered to the North by Adamawa region, to the South by South region, East by East region and the West by Littoral and the West region. This area is chosen for this study because it harbors a good number of schools and its nearness to the central administration of education where the researcher carried out internship. The cost considerations are also among the criteria that necessitated this. The Researcher visited the sub divisional Inspectorate of Basic Education in Yaoundé VI on Monday, June 14th 2021 and was handed (authorized by the Iinspector) a soft copy of the list of schools, their location, date of creation, number of pupils, number of teachers and contact information in the primary sector English subsystem where he found out that, out of about 120 Primary Schools in the subdivision, nine are public, two confessional and 0ne

hundred and nine lay private primary schools. He was made to understand that more schools are being created on daily basis.

3.3 Research Design

The design of a research topic is a general plan to answer a research question. It is a systematic approach to conducting a scientific inquiry, it brings together several components, strategies and methods to collect data and analyze it (Suanders, et al., 2012). Creswell & Plano Clerk (2017, p.58) Define research design as "a procedure for collecting, analyzing, interpreting and reporting data in research studies." It is an outline that presents the procedure for conducting any given investigation. According to Amin (2005, p. 210) “a research design is a plan for carrying out a particular research project." It is a conceptual structure within which the quantitative research is conducted and constitutes the blue print for the measurement and analysis of the data collected" (Burns, 2000).

Considering the nature of the Research, the researcher applies the Correlational research design and two major approaches. These were the: quantitative and qualitative approaches. The quantitative method emphasized on objective measurement and the statistical/numerical analysis of data collected through the questionnaires and surveys. It is concerned with gathering and generalizing numerical data across a group of people to explain a particular phenomenon (Wadsworth, 2010).

The qualitative approach is used in collecting data that supports the quantitative counterpart for this study. It helps participants to give information relevant to their feelings/emotions (Glesne, 2007). The information collected from participants through observation and documents related to CI and QE in Cameroon are in the form of words. Inferential and descriptive statistics are used to analyze the data collected through observation and questionnaires. The use of both questionnaire and observation qualifies the study as cross-sectional survey. Thus data are collected at one point in time through observation. Both methods give rise to the mixed research approach.

3.4 Population of the study

Population constitutes the total number of people who live in a particular area. It is a complete collection of all elements (units) having the same characteristics that are interest in an investigation (Amin, 2005). It's a well-defined collection of individuals known to have similar characteristics. Frankel et al (2000), Defines population as a large group from which we

generalize the results obtained from a sample. The research population is usually the focus of an inquiry; in this light the population of the study constitutes the Basic Education teacher population in Government, lay private and Confessional primary schools in Yaoundé (Mfoundi Division)

The Target population

The target population of this study is the Primary Education teachers in the English subsystem in Yaoundé vi subdivision. To Frank et al (2000), the target population is that which permits the researcher to generalize the results of a potent study. This population may not be accessible enough to the researcher. Thus the target population **is** made up of teachers in lay private and State owned Primary schools and school administrators in Yaoundé VI Subdivision.

As of 2019 of about 76% of public schools teachers in the subdivision are female and 24% male in 2017/2018 with a lower percentage of male in the elementary school level (11%) than the secondary level (36%).

The Accessible population

The accessible population is that which the researcher has direct contact or collects reliable information for this study. Data is gotten from teachers in over nine Government primary schools and two lay private primary schools in the Yaoundé VI subdivision irrespective of the level (see table 2). This decision was simply aimed at eliminating bias in testing. This last one constitutes the finder's interestt because teachers are the main actors in curriculum implementation and therefore responsible for holistic learning.

Table 2 : Population Distribution Table

Population	**Target population**	**Accessible population**	**Sample size**	**Technique**
teachers in Mfoundi Division	primary school teachers in Yaounde vi	Teachers from 11 schools in Yaounde vi	Participants in the study	Probability sampling
4,133	**940**	**150**	**110**	

Source: field data 2022

Table 3: Distribution of accessible population

Name and Type of school	Accessible population	Sample size
Government Bilingual primary school BIYEM-ASSI IIB	**10**	**07%**
Government English primary school ETOUG-EBE I	**18**	**13%**
FRANKY PRIMARY SCHOOL - Lay Private	**18**	**13%**
Government Bilingual primary school BIYEM-ASSI IA	**10**	**07%**
Government Bilingual primary school BIYEM-ASSI IB	**9**	**06%**
Government Bilingual primary school BIYEM-ASSI IIA2	**12**	**10%**
Government Bilingual primary school BIYEM-ASSI IIA1	**10**	**07%**
Government English primary school ETOUG-EBE II	**17**	**12%**
Government Bilingual primary school MVOG- BETSI I	**14**	**11.5%**
Government Bilingual primary school MVOG-BETSI II	**14**	**11.5%**
PEACE HOME - Lay private	**18**	**13%**
Total:	**150**	**110**

Source: field data 2022

3.5 Sampling and Sampling Techniques

Sample is a portion drawn from a population (the study of which is intended to lead to statistical estimates of the attributes of the whole population. Punch (1998), defines sample as a representative of a whole population to allow generalization of the research findings. Out of every five Public schools in the subdivision, the researcher choose one Lay private institution. This is intended to avoid bias whose purpose is to permit pertinent information as concerns the stance of quality assurance laid down by UNESCO/UNICEF/MINEDUB.

The Probability Sampling is used in order to select participants for this study. The choice of the Simple Random category (Sampling without Replacement) is instrumental because the technique permits our sample an equal probability of being chosen apart from being representative as errors are easily estimated (Barreiro, P.& Albandoz, J., 2001). Sampling without replacement is intended to maximize the measurement of the same elements twice. The Researcher makes a draw to choose the elements worthy of testing randomly so that they all have the probability of belonging to the sample. When the elements have been selected and measured and can be selected again we say that we make use of sampling with replacement and vice-versa.

The sampled population for this study includes all Government Primary Schools and two randomly selected lay private primary schools as discussed above. The Researcher visits 11 institutions in the Yaoundé VI subdivision whose teachers are the key informants for the study.

Sample Size

Sample size refers to participants or objects used for a research project (Sarantakos, 2005). The aim of Sampling is to obtain a group objects that will be representative of a large population. This is done through sample size determination which is the act of choosing a number of observations /replicates to include in a statistical sample. The purpose of a sample size is to make inferences about a larger population. Sample size is determined by looking at the cost, time and convenience of data collection and its propensity to offer sufficient statistical power. The sample is made up of one hundred and ten participants (informants). This includes all the eleven (11) head teachers and teachers in the sample (see table 3). The sample size for this study is determined by Yamane (1967) finite population formula. Consider the formula below:

$$\mathbf{n = N/1+N\ (e)2}$$

Where

n = sample size required

N = population size

e = level of precision or sampling error (% allowance for the non-precision of the use of sample instead of the population).

3.6 Research Instruments

These are measurement tools (observation guides, check lists, questionnaires, interview guides) designed to obtain data for research purposes. They translate attributes or traits into quantities (Amin, 2005). As tools used in data collection, they must be systematically constructed in order to obtain reliable and accurate information. The instruments used for this study are observation and questionnaires.

The Questionnaire:

The questionnaire is a carefully designed instrument for collecting data in accordance with the research questions and hypotheses. It was designed to enhance the collection of large amount of information and to ensure accurate data collection considering that teacher were able to give concrete information related to the practices of integrated learning and quality education in accordance with the CBA

Elements such as name and identification number are not needed for the purpose of confidentiality. The instruments are designed in English since the study is concerned with the English subsystem only. Open ended questionnaires are also used for in-depth information from the respondents. In addition, the opinions of teachers about integration is very necessary because it helps in curriculum innovation and review. The choice of Language is down to earth for easy compression.

The questionnaire is constructed in 7 sections of 39 items only. This includes Section A: Demographic information, B: hypothesis 1, C: hypothesis 2: D: hypothesis 3 and E, F, G related to the dependent variable. This was aimed to gather data about the actual practices of CI and QEC. It was very necessary to use the likert scale (with 4 points) in this design. The response categories where weighted from 4 to 1 for positive notes as illustrated below

Table 4: Response categories in the questionnaire and their weight

Response categories	Positive representation	Negative representation
Strongly disagree (SD)	1	4
Disagree (D)	2	3
Agree (A)	3	2
Strongly Agree (SA)	4	1

Observation Guide

In order to have an in-depth knowledge and reality of the teaching effected by teachers in a typical traditional classroom, the classroom interaction analysis category system is used. The study makes use of Flanders Interaction analysis category system (FIACS) a method of observation designed to record verbal interactions between teachers and students during the teaching and learning session. FIACS is preferred because of its consistency in providing feedback during classroom observation. Observation is chosen as the second tool of data collection suitable in a qualitative study. It provides detailed information about the interaction of teachers and students in addition to the questionnaire.

FIACS categories are used to guide and maintain the credibility of the observed behaviors. Observable behaviors from teachers and students are recorded through making notes immediately as the behavior is occurring (See Gay, Mills & Airasian (2009). It is important to make notes during observation to avoid some information being forgotten or distorted, a situation that may occur when data are recorded after observation.

Observation is also used to acquire an in-depth view of the effectiveness of integration and its accompanied strategies used to captivate students' interest and make learning meaningful, goal oriented and realistic. Thus, the duration depends on the length of the lesson. See apendix 2.

3.7 Validity of Instruments

This refers the ability of an instrument to measure the behavior it intends to measure. We refer to it as valid. Validity is the ability to produce findings that agree with the theoretical or conceptual values; in order to produce accurate results and measure what is supposed to be measured (Amin, 2005). This means that the instrument measures what was intended and the data collected accurately represents the respondents' opinion. To ensure that the instruments are valid, construct validity is established - the ability of instrument to represent the constructs or themes under investigation. This is done by covering the entire content (content validity) - such that the variables in the questionnaire represent all the domains/constructs.

Face Validity:

This is done by reading the instrument thoroughly after construction and submitting to friends, colleagues and co-coordinator to read and correct before presentation to the supervisor

to ascertain the relationship with the objectives and hypotheses in chapter one. With necessary corrections the questionnaire is considered to attain face validity.

Content Validity:

The systematic assessment of the test items in a test to make sure that the instruments adequately covers the domains/content. It refers to the degree to which a test accurately measures the traits for which it is designed and to show how adequately the instrument samples the universe, knowledge, skills, perception and attitudes that are expected to exhibit. It focuses upon the extent to which an instrument corresponds to the content of the theoretical concepts it is made to measure.

Content validity for this instrument was determine by using the formula:

$$\textbf{\textit{Content validity index}}\ (\textbf{\textit{CVI}}) = \frac{\textbf{\textit{Number of judges who declared an item valide}}}{\textbf{\textit{Total number of judges in the sample}}}$$

3.8 Reliability of Instruments:

This is the extent to which a test repeatedly gives the same results. It is a measure of how consistent the results from a test are. According to Amin (2005), Reliability is the measure of the degree to which a research gives consistent outputs after repeated trails. Therefore, an instrument is said to be reliable when it measures a variable accurately and consistently obtains the same results under the same conditions over a period. The questionnaire and observation categories are constructed and ensured that they are reliable to consistently measure what they are designed for such that they stood the taste of dependability and trustworthiness. The Researcher used the test retest method (administered the same test for at least twice, correlated the test scores to get the reliable scores or found out if the test was reliable) and correlated the scores of respondent in two occasions to assess their degree of consistency thus permitting the application of the Pearson product moment correlation (PPMC).

Piloting the Instruments

The term pilot study in research is referred to as "trail runs which small scaled versions are done in preparation for the major study (Polit, et al., 20001). It can also be referred to as a pre-testing/trying out of a research instrument (Baker, 1994). An advantage for conducting a pilot study is that it might give prerequisite warning about the weakness of the instrument (protocol, proposed method, appropriateness and complications). Pilot testing helps to point out any problems in the test instructions in relation to ambiguity, formatting issues and others are

identified and sorted in a pilot study. The piloting of the questionnaire was carried out with 10 instruments each administered to teachers in a neutral site in the centre Region. This was intended to observe the ease with which the respondents could handle the items. Areas of ambiguity were identified and examined for possible correction. The instruments were also validated by the supervisor and other experts in the Faculty who asserted their trustworthiness useful information relevant for the attainment of the aims of the study.

Administration of the instruments

After due accord and validation by the Supervisor, the researcher proceeded to administer the test to respondents with a research permit obtained from the Faculty. This permit was presented to primary school head teachers and teachers (public and private) who showed willfulness to participate in the study at their convenience. The Researcher explained the objectives of the study and assured confidentiality and went on to serve as guide to the respondents. The instruments were returned after each data collection session, a process which took the researcher quite some time on the field.

3.9 Data Collection Methods

Sources:

Data came from a variety of sources, including spoken and written sources. As far as the spoken sources are concerned, we first relied on personal experiences and observation of teaching practiced in the Primary Sector with regards to the present Educational program in Cameroon. This consisted of self-administered questionnaires and observations to the targeted groups for reasons stated above. Our concern is to ensure accurate data collection from the sample through these tools from teachers and school administrators in the sector.

In matters of usage of the curricula, we collected varied opinions on the notion of integrated learning and its subsequent effects on education for all Cameroonian children if all the resources were put together. The conditions under which data are collected are very formal. The aim is to get information about how things should be done naturally, spontaneously and consciously following the CBA. This not to mention is the only procedure to get a valid rule-system hidden in the national goals for education. With this in mind the observer administered questionnaires and classroom observation to some randomly selected made up of teachers and administrators of the Basic Education Sector. Their opinions are confidently considered without bias as major contributions to this study.

Our next area of interest however, is the written sources. We culled data from previous works that attempt a description of the current Primary curriculum-english subsystem(PCES) and other official documents, especially when observation showed that they are representative enough of actual usage. Together with data collected randomly through the tools described above, the following source constituted the item base part of the data. The main tool observed the Primary School Curriculum (2018)-English subsystem is accompanied by Fedelise Alemnge (2020). Curriculum reform in Cameroon: An analysis of the New Primary School curriculum and the Stratégie de Développement National (SDN30).

3.10 Data Analysis Methods

Data analysis is a process of inspection, cleaning, transforming and modeling data with the aim of discovering useful information, making conclusions and supporting the decisions in a study. The data are analyzed using the descriptive/inferential statistics and multiple regression.

Data analysis for this chapter makes use of the Quantitative and Qualitative methods because the researcher administered observation (qualitative measurement) and questionnaires (quantitative measurement) to the study Population. The data collected through observation are grouped and used as support for the results of quantitative approach. Upon completion of the data, it is packaged in two envelopes in order of schools for qualitative and quantitative analysis, the questionnaires are codified (both opened/closed ended questions). The next step was to build a typing mask in excel. After this, the data are entered in the excel mask and verified to avoid bias and errors and then imported from excel to SPSS Software for analysis. The Pearson product moment correlation (PPMC) is used to determine the degree of association between the variables.

The statistical package for the social scientists (spss) is use to carry out all the analyses related to the investigations. The results are presented in tables and or bar charts, matrices and cells with summaried interpretations in each case.

3.11 Operationalization of the Variables

A variable is the characteristic on which people can differ from one another (Luma, 1999). It simply refers to a person, place, thing or phenomenon you are trying to measure. The Variables measured in this study are grouped into different categories. This include: the independent and the dependent variables.

Independent Variable (IV)

This is the presumed cause of a phenomenon or reason variable, an explanatory, right hand side or predictor variable. It is a variable that stands alone and is not changed by other variables in measurement. It is called independent because it is not influence by other variables in a study. "That which can be manipulated upon by a researcher." (Amin, 2005). The IV is usually responsible for the status of other variables in a study. That for this study is curriculum integration. It involves Modalities like: teacher's experience, learner's interest, influence of stakeholders, active participation, learning experiences, quality content, project-based learning.

Dependent Variable (DV)

It is called the consequence, response or outcome/left hand side variable. "A characteristic that is used when the statement of hypothesis is made." (Amin, 2005). It usually receives the effects of the IV (Asutabong, 1998). Its includes observable behavior of an organism (Tanyi, 2016). There are characteristics studied when the statements of hypothesis are made. The dependent variable for this study is Quality Education. QE is comprised of elements like: learning environment, skillful assessment, teaching methods, model lessons.

Table 5: Synoptic table

Main hypothesis	Specific Hypotheses	Independent variables	Indicators	Dependent variables	Indicators	Modalities	Statistical technique	Measurement tool
-There is a significant relationship between Curriculum integration and quality education in Cameroon primary schools	-There is a relationship between integrated theme learning and quality education in the Yaoundé vi subdivision	- integrated theme learning	- constructivist learning - enthusiastic participation - learning through a central topic - representative to life occurrences	-learning environment	-condusive, friendly, attractive, gender sensitive	-Strongly agree -agree - disagree -Strongly disagree	-mean, mode, standard deviation - pearson correlation	- ordinal scale - norminal scale
	-There is a relationship between relevant content and quality education in the Yaoundé	-relevant content	-realistic, challenging, varied	-teaching methods	-lectures, demonstration, presentations, interaction, Role play, Projection	-Strongly agree -agree -disagree -Strongly disagree	-mean, mode, standard deviation -pearson correlation	-ordinal scale -norminal scale

	vi subdivision - there is a relationship between project-based learning and quality education in the Yaoundé vi subdivision	- project-based learning	-lifelong learning, problem-solving, learning by doing, Critical thinking, Extracurricular	-assessment strategies	- role play, Paired group work, individualized follow up,	-Strongly agree -agree -disagree - Strongly disagree	-mean, mode, standard deviation -pearson correlation	- ordinal scale - norminal scale

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.1 Descriptive Statistics

This analysis consists of presenting data collected from the field in tables and graphs such as charts (bar charts) that are applicable to emphasis on factors such as frequencies and percentages thus having a portrayed of the population parameters which serves as the foundation to better understand the research problem at hand and hence draw good conclusions on the research objective in turn. The findings are presented based on the research objectives that guided the study. However, findings for each test items are stretched to reflect the four-point scale. Thereafter, responses for strongly agree and agree are collapsed (merged) while disagree and strongly disagree are collapsed together. The reason for collapsing strongly agree and agree and disagree and strongly disagree is to better appreciate the weight of the responses.

Descriptive Statistics on Integrated Theme Learning and Quality Education

Table 6: Integrated themes make teaching relevant to real life

		Frequency	Percent
Valid	Strongly agree	48	43.6
	Agree	60	54.5
	Disagree	2	1.8
	Total	110	100.0

The distribution above shows respondents opinions on how integrated themes make teaching relevant to real life. 48 participants out of 110 strongly agreed that integrated themes make teaching relevant to real life, and 60 of the respondents agreed also to this statement giving a total percentage of 98.2%. On the other hand, out of the 110 participants a total portion of 02 respondents disagreed that integrated themes make teaching relevant to real life. Giving an overall percentage of about 1.8%.

Table 7: Themes do not connect appropriately to day to day occurrences

		Frequency	Percent
Valid	Strongly agree	8	7.3
	Agree	40	36.4
	Disagree	60	54.5
	Strongly disagree	2	1.8
	Total	110	100.0

The distribution above shows respondents opinions on how themes connect to day to day occurrences. 08 participants out of 110 strongly agreed that themes do not connect appropriately to day to day occurrences, and a further 40 of the respondents agreed also to this statement giving a total percentage of 43.7%. Nevertheless, out of the 110 participants a total portion of 60 respondents either disagreed or strongly disagreed that themes do not connect appropriately to day to day occurrences. Giving an overall percentage of about 56.3%.

Table 8: I cannot integrate the themes to learning experiences in my class

		Frequency	Percent
Valid	Strongly agree	8	7.3
	Agree	5	4.5
	Disagree	75	68.2
	Strongly disagree	22	20.0
	Total	110	100.0

The distribution above shows teachers' opinions on how they can integrate themes to learning experiences in their classes. 08 participants out of 110 strongly agreed that they cannot integrate the themes to learning experiences in class, and a further 05 of the respondents agreed also to this statement giving a total percentage of 11.8%. Meanwhile, out of the 110 participants a total portion of 97 respondents either disagreed or strongly disagreed that they cannot integrate the themes to learning experiences in class. Giving an overall percentage of about 88.2%.

Table 9: The themes are not representative of the schooling duration

		Frequency	Percent
Valid	Strongly agree	6	5.5
	Agree	23	20.9
	Disagree	61	55.5
	Strongly disagree	20	18.2
	Total	110	100.0

The distribution above shows respondents opinions on how representative themes are with respect to school duration. 06 participants out of 110 strongly agreed that the themes are not representative of the schooling duration, and a further 23 of the respondents agreed also to this statement giving a total percentage of 26.4%. Nevertheless, out of the 110 participants a total portion of 81 respondents either agreed or strongly agreed that the themes are not representative of the schooling duration. Giving an overall percentage of about 73.6%.

Table 10: Learning takes place best in environments where students are empowered to learn

		Frequency	Percent
Valid	Strongly agree	68	61.8
	Agree	28	25.5
	Disagree	8	7.3
	Strongly disagree	6	5.5
	Total	110	100.0

The distribution above shows respondents opinions on learning environment and how it empowers students to learn. 68 participants out of 110 strongly agreed that learning takes place best in environments where students are empowered to learn, and a further 28 of the respondents agreed also to this statement giving a total percentage of 87.3%. Nevertheless, out of the 110 participants a total portion of 14 respondents either disagreed or strongly disagreed that learning takes place best in environments where students are empowered to learn. Giving an overall percentage of about 12.7%.

Table 11: These themes are vague and very unnecessary in the 21st century

		Frequency	Percent
Valid	Strongly agree	6	5.5
	Agree	1	0.9
	Disagree	59	53.6
	Strongly disagree	44	40.0
	Total	110	100.0

The distribution above shows respondents opinions on the vagueness of themes and their necessity. 6 participants out of 110 strongly agreed that these themes are vague and very unnecessary in the 21st century, and a further 01 of the respondents agreed also to this statement giving a total percentage of 6.4%. Meanwhile, out of the 110 participants a total portion of 103 respondents either disagreed or strongly disagreed that these themes are vague and very unnecessary in the 21st century. Giving an overall percentage of about 93.6%.

Table 12: Teachers play the role of facilitators since integration is learner centred

		Frequency	Percent
Valid	Strongly agree	56	50.9
	Agree	46	41.8
	Disagree	6	5.5
	Strongly disagree	2	1.8
	Total	110	100.0

The distribution above shows respondents opinions on the role of teachers as facilitators. 56 participants out of 110 strongly agreed that teachers play the role of facilitators since integration is learner centred, and a further 46 of the respondents agreed also to this statement giving a total percentage of 92.7%. Meanwhile, out of the 110 participants a total portion of 08 respondents either disagreed or strongly disagreed that teachers play the role of facilitators since integration is learner centred. Giving an overall percentage of about 7.3%.

Descriptive Statistics on Content Relevancy and Quality Education

Table 13: The subject matter doesn't suit the objectives of the curriculum

		Frequency	Percent
Valid	Strongly agree	8	7.3
	Agree	8	7.3
	Disagree	66	60.0
	Strongly disagree	28	25.5
	Total	110	100.0

The distribution above shows respondents opinions on how subject matter suit curriculum objectives. 08 participants out of 110 strongly agreed that the subject matter does not suit the objectives of the curriculum, and a further 08 of the respondents agreed also to this statement giving a total percentage of 14.6%. Meanwhile, out of the 110 participants a total portion of 94 respondents either disagreed or strongly disagreed that the subject matter does not suit the objectives of the curriculum. Giving an overall percentage of about 85.4%.

Table 14: The content is not challenging to the learners

		Frequency	Percent
Valid	Strongly agree	4	3.6
	Agree	26	23.6
	Disagree	60	54.5
	Strongly disagree	20	18.2
	Total	110	100.0

The distribution above shows respondents opinions on how challenging content is to learners. 04 participants out of 110 strongly agreed that the content is not challenging to the learners, and a further 26 of the respondents agreed also to this statement giving a total percentage of 27.2%. Meanwhile, out of the 110 participants a total portion of 80 respondents either disagreed or strongly disagreed that the content is not challenging to the learners. Giving an overall percentage of about 72.8%.

Table 15: Subject matter is a means not a goal

		Frequency	Percent
Valid	Strongly agree	8	7.3
	Agree	46	41.8
	Disagree	52	47.3
	Strongly disagree	4	3.6
	Total	110	100.0

The distribution above shows respondents opinions on the purpose of subject matter. 08 participants out of 110 strongly agreed that subject matter is a means not a goal, and a further 46 of the respondents agreed also to this statement giving a total percentage of 49.1%. Meanwhile, out of the 110 participants a total portion of 56 respondents either disagreed or strongly disagreed that subject matter is a means not a goal. Giving an overall percentage of about 50.9%.

Table 16: Teachable units are inappropriate to learners with CBA

		Frequency	Percent
Valid	Strongly agree	4	3.6
	Agree	26	23.6
	Disagree	64	58.2
	Strongly disagree	16	14.5
	Total	110	100.0

The distribution above shows respondents opinions on the applicability of the CBA. 04 participants out of 110 strongly agreed that teachable units are inappropriate to learners with CBA, and a further 26 of the respondents agreed also to this statement giving a total percentage of 26.2%. On the other hand, out of the 110 participants a total portion of 80 respondents either disagreed or strongly disagreed that teachable units are inappropriate to learners with CBA. Giving an overall percentage of about 73.8%.

Table 17: The material is too much for the children to assemble and make meaningful relationships

		Frequency	Percent
Valid	Strongly agree	20	18.2
	Agree	63	57.3
	Disagree	21	19.1
	Strongly disagree	6	5.5
	Total	110	100.0

The distribution above shows respondents opinions on the bulkiness of content. 20 participants out of 110 strongly agreed that the material is too much for the children to assemble and make meaningful relationships, and a further 63 of the respondents agreed also to this statement giving a total percentage of 75.5%. On the other hand, out of the 110 participants a total portion of 27 respondents either disagreed or strongly disagreed that the material is too much for the children to assemble and make meaningful relationships. Giving an overall percentage of about 24.5%.

Table 18: My students are up to standards in relation to the curriculum content

		Frequency	Percent
Valid	Strongly agree	11	10.0
	Agree	71	64.5
	Disagree	22	20.0
	Strongly disagree	6	5.5
	Total	110	100.0

The distribution above shows respondents opinions on students' standards with respect to the curriculum content. 11 participants out of 110 strongly agreed that my students are up to standards in relation to the curriculum content, and a further 71 of the respondents agreed also to this statement giving a total percentage of 74.5%. On the other hand, out of the 110 participants a total portion of 28 respondents either disagreed or strongly disagreed that my students are up to standards in relation to the curriculum content. Giving an overall percentage of about 25.5%.

Table 19: There are no instructional materials to boost my personal research as a teacher

		Frequency	Percent
Valid	Strongly agree	12	10.9
	Agree	33	30.0
	Disagree	51	46.4
	Strongly disagree	14	12.7
	Total	110	100.0

The distribution above shows respondents opinions on the role of instructional materials to boost teachers' performance. 12 participants out of 110 strongly agreed that there are no instructional materials to boost my personal research as a teacher, and a further 33 of the respondents agreed also to this statement giving a total percentage of 40.9%. On the other hand, out of the 110 participants a total portion of 65 respondents either disagreed or strongly disagreed that there are no instructional materials to boost my personal research as a teacher. Giving an overall percentage of about 59.1%.

Table 20: The content is very much challenging to learners

		Frequency	Percent
Valid	Strongly agree	16	14.5
	Agree	36	32.7
	Disagree	54	49.1
	Strongly disagree	4	3.6
	Total	110	100.0

The distribution above shows respondents opinions on how challenging content is for students to grasp. 16 participants out of 110 strongly agreed that the content is very much challenging to learners, and a further 36 of the respondents agreed also to this statement giving a total percentage of 47.2%. On the other hand, out of the 110 participants a total portion of 58 respondents either disagreed or strongly disagreed that the content is very much challenging to learners. Giving an overall percentage of about 52.8%.

Descriptive Statistics on Project-Based Learning and Quality Education

Table 21: Pupils have not been introduced to basic farm techniques since we don't have school farms

		Frequency	Percent
Valid	Strongly agree	29	26.4
	Agree	35	31.8
	Disagree	34	30.9
	Strongly disagree	12	10.9
	Total	110	100.0

The distribution above shows respondents opinions on pupils' introduction to farming techniques. 29 participants out of 110 strongly agreed that pupils have not been introduced to basic farm techniques since we don't have school farms, and a further 35 of the respondents agreed also to this statement giving a total percentage of 58.2%. On the other hand, out of the 110 participants a total portion of 46 respondents either disagreed or strongly disagreed that pupils have not been introduced to basic farm techniques since we don't have school farms. Giving an overall percentage of about 41.8%.

Table 22: During team work some pupils do the work for others

		Frequency	Percent
Valid	Strongly agree	15	13.6
	Agree	67	60.9
	Disagree	28	25.5
	Total	110	100.0

The distribution above shows respondents opinions on pupils' collaborative work. 15 participants out of 110 strongly agreed that during team work some pupils do the work for others, and a further 67 of the respondents agreed also to this statement giving a total percentage of 74.5%. Meanwhile, out of the 110 participants a total portion of 28 respondents either disagreed or strongly disagreed that during team work some pupils do the work for others. Giving an overall percentage of about 25.5%.

Table 23: Small group studies and whole class discussions can better students' knowledge and permit for the application of skills through learning by doing

		Frequency	Percent
Valid	Strongly agree	49	44.5
	Agree	51	46.4
	Disagree	8	7.3
	Strongly disagree	2	1.8
	Total	110	100.0

The distribution above shows respondents opinions on small gropus and class discussions. 49 participants out of 110 strongly agreed that small group studies and whole class discussions can better students' knowledge and permit for the application of skills through learning by doing, and a further 51 of the respondents agreed also to this statement giving a total percentage of 90.9%. Meanwhile, out of the 110 participants a total portion of 10 respondents either disagreed or strongly disagreed that small group studies and whole class discussions can better students' knowledge and permit for the application of skills through learning by doing. Giving an overall percentage of about 9.1%.

Table 24: Projects are of no use to primary school pupils, besides they are too expensive for the school

		Frequency	Percent
Valid	Strongly agree	4	3.6
	Disagree	70	63.6
	Strongly disagree	36	32.7
	Total	110	100.0

The distribution above shows respondents opinions on the role of project in primary schools. 04 participants out of 110 strongly agreed that projects are of no use to primary school pupils, besides they are too expensive for the school, and none of the respondents agreed also to this statement giving a total percentage of 3.6%. Meanwhile, out of the 110 participants a total portion of 106 respondents either disagreed or strongly disagreed that projects are of no

use to primary school pupils; besides they are too expensive for the school. Giving an overall percentage of about 96.4%

Table 25: Students and teachers are obliged to work together

		Frequency	Percent
Valid	Strongly agree	70	63.6
	Agree	36	32.7
	Disagree	4	3.6
	Total	110	100.0

The distribution above shows respondents opinions on student and teacher collaboration. 70 participants out of 110 strongly agreed that students and teachers are obliged to work together, and a further 36 of the respondents agreed also to this statement giving a total percentage of 96.3%. Meanwhile, out of the 110 participants a total portion of 04 respondents either disagreed or strongly disagreed that students and teachers are obliged to work together. Giving an overall percentage of about 3.7%.

Table 26: Collaboration is not necessary to improve pupils' learning

		Frequency	Percent
Valid	Strongly agree	10	9.1
	Agree	4	3.6
	Disagree	41	37.3
	Strongly disagree	55	50.0
	Total	110	100.0

The distribution above shows respondents opinions on student and teacher collaboration. 10 participants out of 110 strongly agreed that collaboration is not necessary to improve pupils' learning, and a further 04 of the respondents agreed also to this statement giving a total percentage of 12.7%. Meanwhile, out of the 110 participants a total portion of 96 respondents either disagreed or strongly disagreed that collaboration is not necessary to improve pupils' learning. Giving an overall percentage of about 87.3%.

Table 27: Out of school visits to recreational sites (gardens, supermarkets, stadia) are never in our program

		Frequency	Percent
Valid	Strongly agree	17	15.5
	Agree	12	10.9
	Disagree	61	55.5
	Strongly disagree	20	18.2
	Total	110	100.0

The distribution above shows respondents opinions on out of school visits. 17 participants out of 110 strongly agreed that out of school visits to recreational sites (gardens, supermarkets, stadia) are never in our program, and a further 12 of the respondents agreed also to this statement giving a total percentage of 26.4%. Meanwhile, out of the 110 participants a total portion of 81 respondents either disagreed or strongly disagreed that out of school visits to recreational sites (gardens, supermarkets, stadia) are never in our program. Giving an overall percentage of about 73.6%.

Descriptive Statistics on Quality Education

Table 28: A healthy school environment brings desirable output in the learner, thus building on their attitudes, skill, knowledge and aptitudes needed for educational advancement

		Frequency	Percent
Valid	Strongly agree	84	76.4
	Agree	24	21.8
	Strongly disagree	2	1.8
	Total	110	100.0

The distribution above shows respondents opinions on the effect of environment on learners' acquisition of competencies 84 participants out of 110 strongly agreed that a healthy school environment brings desirable output in the learner, thus building on their attitudes, skill, knowledge and aptitudes needed for educational advancement, and a further 24 of the respondents agreed also to this statement giving a total percentage of 98.2%. Meanwhile, out of the 110 participants a total portion of 02 respondents either disagreed or strongly disagreed that a healthy school environment brings desirable output in the learner, thus building on their

attitudes, skill, knowledge and aptitudes needed for educational advancement. Giving an overall percentage of about 1.8%.

Table 29: Quality education is only about what goes on in the classroom setting

		Frequency	Percent
Valid	Strongly agree	2	1.8
	Agree	10	9.1
	Disagree	55	50.0
	Strongly disagree	43	39.1
	Total	110	100.0

The distribution above shows respondents opinions on the nature of quality education. 02 participants out of 110 strongly agreed that quality education is only about what goes on in the classroom setting, and a further 10 of the respondents agreed also to this statement giving a total percentage of 10.9%. Meanwhile, out of the 110 participants a total portion of 98 respondents either disagreed or strongly disagreed that quality education is only about what goes on in the classroom setting. Giving an overall percentage of about 89.1%.

Table 30: Learners must be supported by their families through varied forms of motivation as they learn

		Frequency	Percent
Valid	Strongly agree	57	51.8
	Agree	38	34.5
	Disagree	10	9.1
	Strongly disagree	5	4.5
	Total	110	100.0

The distribution above shows respondents opinions on family involvement in learners' progress. 57 participants out of 110 strongly agreed that learners must be supported by their families through varied forms of motivation as they learn, and a further 38 of the respondents agreed also to this statement giving a total percentage of 86.3%. Meanwhile, out of the 110 participants a total portion of 15 respondents either disagreed or strongly disagreed that learners

must be supported by their families through varied forms of motivation as they learn. Giving an overall percentage of about 13.7%.

Table 31: Quality education is meaningless to pupils nowadays, it is a waste of time and resources

		Frequency	Percent
Valid	Strongly agree	4	3.6
	Agree	11	10.0
	Disagree	53	48.2
	Strongly disagree	42	38.2
	Total	110	100.0

The distribution above shows respondents opinions on the value of quality education. 04 participants out of 110 strongly agreed that quality education is meaningless to pupils nowadays, it is a waste of time and resources, and a further 11 of the respondents agreed also to this statement giving a total percentage of 13.6%. Meanwhile, out of the 110 participants a total portion of 95 respondents either disagreed or strongly disagreed that quality education is meaningless to pupils nowadays, it is a waste of time and resources. Giving an overall percentage of about 86.4%.

Table 32: Our school does not have a well-equipped computer laboratory and or basic ICT equipment for practical lessons

		Frequency	Percent
Valid	Strongly agree	16	14.5
	Agree	48	43.6
	Disagree	33	30.0
	Strongly disagree	13	11.8
	Total	110	100.0

The distribution above shows respondents opinions on the availability of computer laboratories. 16 participants out of 110 strongly agreed that our school does not have a well-equipped computer laboratory and or basic ICT equipment for practical lessons, and a further 48 of the respondents agreed also to this statement giving a total percentage of 58.1%.

Meanwhile, out of the 110 participants a total portion of 46 respondents either disagreed or strongly disagreed that our school does not have a well-equipped computer laboratory and or basic ICT equipment for practical lessons. Giving an overall percentage of about 41.9%.

Table 33: Our monthly assessments are often poorly organised due to lack of expertise

		Frequency	Percent
Valid	Strongly agree	20	18.2
	Agree	4	3.6
	Disagree	61	55.5
	Strongly disagree	25	22.7
	Total	110	100.0

The distribution above shows respondents opinions on the organisation of monthly assessment. 20 participants out of 110 strongly agreed that our monthly assessments are often poorly organised due to lack of expertise, and a further 04 of the respondents agreed also to this statement giving a total percentage of 21.8%. Meanwhile, out of the 110 participants a total portion of 86 respondents either disagreed or strongly disagreed that our monthly assessments are often poorly organised due to lack of expertise. Giving an overall percentage of about 78.2%.

Table 34: Pupils do not cooperate when allowed to themselves

		Frequency	Percent
Valid	Strongly agree	6	5.5
	Agree	35	31.8
	Disagree	63	57.3
	Strongly disagree	6	5.5
	Total	110	100.0

The distribution above shows respondents opinions on cooperation amongst pupils. 06 participants out of 110 strongly agreed that pupils do not cooperate when allowed to themselves, and a further 35 of the respondents agreed also to this statement giving a total percentage of 37.3%. Meanwhile, out of the 110 participants a total portion of 69 respondents either disagreed

or strongly disagreed that pupils do not cooperate when allowed to themselves. Giving an overall percentage of about 62.7%.

Table 35: Pupils who are willing to learn are pivotal products for societal development

		Frequency	Percent
Valid	Strongly agree	38	34.5
	Agree	48	43.6
	Disagree	14	12.7
	Strongly disagree	10	9.1
	Total	110	100.0

The distribution above shows respondents opinions on the outcome of learning. 38 participants out of 110 strongly agreed that pupils who are willing to learn are pivotal products for societal development, and a further 48 of the respondents agreed also to this statement giving a total percentage of 78.1%. Meanwhile, out of the 110 participants a total portion of 24 respondents either disagreed or strongly disagreed that pupils who are willing to learn are pivotal products for societal development. Giving an overall percentage of about 21.9%.

Table 36: I hardly permit pupils to work on their own because they know nothing

		Frequency	Percent
Valid	Strongly agree	4	3.6
	Agree	12	10.9
	Disagree	53	48.2
	Strongly disagree	41	37.3
	Total	110	100.0

The distribution above shows respondents opinions on learners' autonomy. 04 participants out of 110 strongly agreed that they hardly permit pupils to work on their own because they know nothing, and a further 12 of the respondents agreed also to this statement giving a total percentage of 14.5%. Meanwhile, out of the 110 participants a total portion of 94 respondents either disagreed or strongly disagreed that they hardly permit pupils to work on their own because they know nothing. Giving an overall percentage of about 85.5%.

Table 37: Leadership skills are never part of my lesson planning

		Frequency	Percent
Valid	Agree	16	14.5
	Disagree	53	48.2
	Strongly disagree	41	37.3
	Total	110	100.0

The distribution above shows respondents opinions on the place of leadership skills in content. No participants out of 110 strongly agreed that leadership skills are never part of my lesson planning, nevertheless 16 of the respondents agreed also to this statement giving a total percentage of 14.5%. Meanwhile, out of the 110 participants a total portion of 94 respondents either disagreed or strongly disagreed that leadership skills are never part of my lesson planning. Giving an overall percentage of about 85.5%.

Table 38: Pupils show off their talents when put into small groups with given tasks

		Frequency	Percent
Valid	Strongly agree	49	44.5
	Agree	48	43.6
	Disagree	4	3.6
	Strongly disagree	9	8.2
	Total	110	100.0

The distribution above shows respondents opinions on show of talents by learners. 49 participants out of 110 strongly agreed that pupils show off their talents when put into small groups with given tasks, and a further 48 of the respondents agreed also to this statement giving a total percentage of 88.1%. Meanwhile, out of the 110 participants a total portion of 13 respondents either disagreed or strongly disagreed that pupils show off their talents when put into small groups with given tasks. Giving an overall percentage of about 11.9%.

Table 39: My class is well organised with not more than 30 pupils annually

		Frequency	Percent
Valid	Strongly agree	20	18.2
	Agree	36	32.7
	Disagree	29	26.4
	Strongly disagree	25	22.7
	Total	110	100.0

The distribution above shows respondents opinions on class organisation. 20 participants out of 110 strongly agreed that their class is well organised with not more than 30 pupils annually, and a further 36 of the respondents agreed also to this statement giving a total percentage of 50.9%. Meanwhile, out of the 110 participants a total portion of 54 respondents either disagreed or strongly disagreed that their class is well organised with not more than 30 pupils annually. Giving an overall percentage of about 49.1%.

Table 40: Our assessment procedures are not varied; this is to maintain strict measurement of training impact and objectives of the curriculum

		Frequency	Percent
Valid	Strongly agree	2	1.8
	Agree	36	32.7
	Disagree	57	51.8
	Strongly disagree	15	13.6
	Total	110	100.0

The distribution above shows respondents opinions on class assessment procedures. 02 participants out of 110 strongly agreed that our assessment procedures are not varied; this is to maintain strict measurement of training impact and objectives of the curriculum, and a further 36 of the respondents agreed also to this statement giving a total percentage of 34.5%. Meanwhile, out of the 110 participants a total portion of 72 respondents either disagreed or strongly disagreed that our assessment procedures are not varied; this is to maintain strict measurement of training impact and objectives of the curriculum. Giving an overall percentage of about 65.5%.

Table 41: Boys and girls sit on separate tables to avoid getting distracted

		Frequency	Percent
Valid	Agree	12	10.9
	Disagree	59	53.6
	Strongly disagree	39	35.5
	Total	110	100.0

The distribution above shows respondents opinions on sitting arrangement of boys and girls in class. None of the participants out of 110 strongly agreed that boys and girls sit on separate tables to avoid getting distracted, nevertheless 12 of the respondents agreed to this statement giving a total percentage of 10.9%. Meanwhile, out of the 110 participants a total portion of 98 respondents either disagreed or strongly disagreed that boys and girls sit on separate tables to avoid getting distracted. Giving an overall percentage of about 89.1%.

Table 42: The pupils are too many because two classes have been merged; no space for checks and cautions during lessons

		Frequency	Percent
Valid	Strongly agree	3	2.7
	Agree	10	9.1
	Disagree	45	40.9
	Strongly disagree	52	47.3
	Total	110	100.0

The distribution above shows respondents opinions on challenges on class size. 03 participants out of 110 strongly agreed that the pupils are too many because two classes have been merged; no space for checks and cautions during lessons, and a further 10 of the respondents agreed also to this statement giving a total percentage of 11.8%. Meanwhile, out of the 110 participants a total portion of 97 respondents either disagreed or strongly disagreed that the pupils are too many because two classes have been merged; no space for checks and cautions during lessons. Giving an overall percentage of about 88.2%.

Analysis of Qualitative Data

The Flander's Interaction Analysis Category System (FIACS) is used to observe teacher/student relationship in the classroom and to better explain the relationship between curriculum structure and quality education, given that the curriculum structure is based on the communication between teacher and student for instruction and learning in the school environment. Clacking was done every after 5 seconds for three classes and the data obtained is presented in matrices as follows.

Table 43: Observation matrix for general revision in class four

	1	2	3	4	5	6	7	8	9	10	**Total**
1	||||||||	||			||	||			**24**
2	||	||||	|||	|||	||			**17**
3			||	||	||||			|||			**12**
4		||		|||||||				|||||||||	||||		**25**
5	|||				|||||||||| |||||||||| |||||||||| |||||||||| |||||||||| |||||||||| |||||||||| |||||||||| |||||||||| |||||||||| ||||||||||						**157**
6						|||||||||| |||||||||| |||||||||| |||||||						**56**
7								|||||||||| ||||||						**23**
8		|||	|||||||				|||			|||||||||||	||		**29**
9		|||		|||	||	|||					|||||||||||		**27**
10	||				|||	||							||||||||||| ||||||||||	**32**
Total	**24**	**17**	**11**	**25**	**157**	**56**	**23**	**30**	**27**	**32**	**403**

Proportion of Teacher's Talk, Pupils' Talk and Silence or Confusion

- Proportion of teacher's talk = $\frac{Sum\ of\ columns\ (1-7)}{Total\ Sum} * 100$

  Sum of columns (1-7) = 24 + 17 + 11 + 25 + 157 + 56 + 23 = 313

  Total = 403

  Therefore, proportion of teacher's talk = $\frac{313}{403} * 100$ = 77.7%

This implies that, the teacher whether directly or indirectly is the one talking 77.7% of the classroom time during the general revision, given that by standard; teacher talk takes 68% of classroom time.

- Proportion of Pupils' Talk = $\frac{Sum\ of\ columns\ (8\&9)}{Total\ Sum} * 100$

  Sum of columns (8&9) = 30 + 27 = 57

  Total = 403

  Therefore, proportion of pupils' talk = $\frac{57}{403} * 100$ = 14.1%

This implies that, the pupils talked during interaction 14.1% of the classroom time during the general revision, given that by standard; pupils' talk takes 20% of classroom time.

- Proportion of Silence or Confusion = $\frac{Sum\ of\ column\ (10)}{Total\ Sum} * 100$

  Sum of columns (10) = 32

  Total = 403

  Therefore, proportion of silence and confusion = $\frac{32}{403} * 100$ = 7.9%

This implies that, the proportion of silence or confusion during interaction is 7.9% of the classroom time during the general revision, given that by standard; silence or confusion takes 11 or 12 percent of classroom time.

Ratio between Direct and Indirect Influence

This is calculated by summing the columns 1, 2, 3, 4 and dividing by the sum of columns 5, 6, and 7 as given below:

Ratio between Direct and Indirect Influence = $\frac{Sum\ of\ columns\ (1-4)}{Sumof\ columns\ (5-7)}$

Sum of columns (1-4) = 24 + 17 + 11 + 25 = 77

Sum of columns (5-7) = 157 + 56 + 23 = 236

Ratio between Direct and Indirect Influence = $\frac{77}{236}$ = 0.33

Since the ratio is less than 1, it implies that the teacher is direct in the teaching process and influence on pupils.

Ratio between Positive and Negative Reinforcement

$$= \frac{Sum\ of\ columns\ (1-3)}{Sumof\ columns\ (6-7)} = \frac{52}{79} = 0.66$$

Since the ratio is less than 1, this implies the teacher is not a good teacher (has not a good mastery on the teaching and learning process).

Students' Participation Ratio

$$= \frac{Sum\ of\ columns\ (8\&9)}{Total\ Sum}$$

Sum of columns (8&9) = 30 + 27 = 57

Total = 403

Therefore, students participation ratio = $\frac{57}{403}$ = 0.141

This implies that, the pupils did not participate during interaction in the classroom.

Steady State Cells

Looking at the cells diagonally from the top left to bottom right, we discover that these cells are the most filled cells. This implies that the teacher spends too much time more than 5 seconds on one category.

Content Cross Cells

These are the cells (4,4) and (5,5). Given that these cells are heavily filled, particularly cell (5,5); indicates that the teacher emphasis more on subject matter.

Constructive Integration Cells and Vicious Cells

These cells represent areas that are most sensitive to the teacher's positive and negative social skills. These cells reveal teacher's attention to classroom management and control as a distinctive feature from subject matter but alongside it, these areas are coloured green and yellow respectively.

- **Constructive Integration Cells**

The area marked green represent the constructive integration cells. It is observed that these cells are mostly filled out, implying that the teacher faces classroom management challenges along with the control of subject matter.

- **Vicious Cells**

The area marked yellow represent the vicious cells. It shows this area is heavily filled out, implying that the teacher is mostly concerned with subject matter.

Table 44: Observation matrix for health education in class six

<table>
<tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>Total</th></tr>
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<tr><td>4</td><td></td><td></td><td>|||</td><td>||||||</td><td></td><td></td><td></td><td>|||||||||</td><td></td><td></td><td>18</td></tr>
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<tr><td>10</td><td>|</td><td></td><td></td><td></td><td>|</td><td></td><td></td><td></td><td></td><td>||||||</td><td>08</td></tr>
<tr><td>Total</td><td>12</td><td>06</td><td>32</td><td>18</td><td>135</td><td>31</td><td>23</td><td>31</td><td>40</td><td>08</td><td>336</td></tr>
</table>

Proportion of Teacher's Talk, Pupils' Talk and Silence or Confusion

- Proportion of teacher's talk = $\frac{Sum\ of\ columns\ (1-7)}{Total\ Sum} * 100$

  Sum of columns (1-7) = 12 + 6 + 32 + 18 + 135 + 31 + 23 = 257

  Total = 336

  Therefore, proportion of teacher's talk = $\frac{257}{336} * 100$ = 76.5%

This implies that, the teacher whether directly or indirectly is the one talking 76.5% of the classroom time during the health education period, given that by standard; teacher talk takes 68% of classroom time.

- Proportion of Pupils' Talk = $\frac{Sum\ of\ columns\ (8\&9)}{Total\ Sum} * 100$

  Sum of columns (8&9) = 31 + 40 = 51

  Total = 336

  Therefore, proportion of pupils' talk = $\frac{51}{336} * 100$ = 15.2%

This implies that, the pupils' talked during interaction 15.2% of the classroom time during the health education period, given that by standard; pupils' talk takes 20% of classroom time.

- Proportion of Silence or Confusion = $\frac{Sum\ of\ column\ (10)}{Total\ Sum} * 100$

  Sum of columns (10) = 8

  Total = 336

  Therefore, proportion of silence and confusion = $\frac{8}{336} * 100$ = 2.4%

This implies that, the proportion of silence or confusion during interaction is 2.4% of the classroom time during the health education period, given that by standard; silence or confusion takes 11 or 12 percent of classroom time.

Ratio between Direct and Indirect Influence

This is calculated by summing the columns 1, 2, 3, 4 and dividing by the sum of columns 5, 6, and 7 as given below:

Ratio between Direct and Indirect Influence = $\frac{Sum\ of\ columns\ (1-4)}{Sumof\ columns\ (5-7)}$

Sum of columns (1-4) = 12 + 6 + 32 + 18 = 68

Sum of columns (5-7) = 135 + 31 + 23 = 189

Ratio between Direct and Indirect Influence = $\frac{77}{236}$ = 0.36

Since the ratio is less than 1, it implies that the teacher is direct in his/her teaching process and influence on pupils.

Ratio between Positive and Negative Reinforcement

$$= \frac{Sum\ of\ columns\ (1-3)}{Sumof\ columns\ (6-7)} = \frac{50}{54} = 0.93$$

Since the ratio is less than 1, this implies the teacher is not a good teacher (has not a good mastery on the teaching and learning process).

Students' Participation Ratio

$$= \frac{Sum\ of\ columns\ (8\&9)}{Total\ Sum}$$

Sum of columns (8&9) = 31 + 40 = 51

Total = 336

Therefore, Students' participation ratio = $\frac{51}{336}$ = 0.152

This implies that, the pupils do not participate during interaction in the classroom.

Steady State Cells

Looking at the cells diagonally from the top left to bottom right, we discover that these cells are the most filled. This implies that the teacher spends too much more than 5 seconds on one category.

Content Cross Cells

These are the cells (4,4) and (5,5). Given that these cells are heavily filled, particularly cell (5,5); indicates that the teacher lays a lot of emphasis on subject matter.

Constructive Integration Cells and Vicious Cells

These cells represent areas that are most sensitive to the teacher's positive and negative social skills. These cells reveal teacher's attention to classroom management and control as a distinctive feature from subject matter but alongside it. These areas are coloured green and yellow respectively.

- **Constructive Integration Cells**

The area marked green represent the constructive integration cells. It is observed that these cells are mostly filled out, implying that the teacher faces classroom management challenges along with the control of subject matter.

- **Vicious Cells**

The area marked yellow represent the vicious cells. It shows this area is heavily filled out, implying that the teacher is mostly concerned with subject matter.

Table 45: Observation matrix for English Language in class two

	1	2	3	4	5	6	7	8	9	10	Total
1											**44**
2											**05**
3											**28**
4											**32**
5											**119**
6											**163**

<table>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td>||||||||||
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<tr><td>9</td><td>|</td><td></td><td></td><td>|</td><td></td><td>||</td><td>|</td><td>|||</td><td>|||||||||</td><td>|</td><td>18</td></tr>
<tr><td>10</td><td>|</td><td>|</td><td></td><td>|</td><td>|</td><td></td><td></td><td></td><td></td><td>||||||</td><td>10</td></tr>
<tr><td>Total</td><td>44</td><td>05</td><td>28</td><td>32</td><td>119</td><td>163</td><td>57</td><td>19</td><td>18</td><td>10</td><td>495</td></tr>
</table>

Proportion of Teachers' Talk, Pupils' Talk and Silence or Confusion

- Proportion of teacher's talk = $\frac{Sum\ of\ columns\ (1-7)}{Total\ Sum} * 100$

  Sum of columns (1-7) = 44 + 5 + 28 + 32 + 119 + 163 + 57 = 448

  Total = 495

  Therefore, proportion of teacher's talk = $\frac{448}{495} * 100$ = 90.5%

This implies that, the teacher whether directly or indirectly is the one talking 90.5% of the classroom time during the English language period, given that by standard; teacher talk takes 68% of classroom time.

- Proportion of Pupils' Talk = $\frac{Sum\ of\ columns\ (8\&9)}{Total\ Sum} * 100$

  Sum of columns (8&9) = 19 + 18 = 37

  Total = 495

  Therefore, proportion of pupils' talk = $\frac{37}{495} * 100$ = 7.5%

This implies that, the pupils' talked during interaction 7.5% of the classroom time; during the English language period, given that by standard; pupils' talk takes 20% of classroom time.

- Proportion of Silence or Confusion = $\frac{Sum\ of\ column\ (10)}{Total\ Sum} * 100$

  Sum of columns (10) = 10

  Total = 495

  Therefore, proportion of silence and confusion = $\frac{10}{495} * 100$ = 2.0%

This implies that, the proportion of silence or confusion during interaction is 2.0% of the classroom time during the English language period, given that by standard; silence or confusion takes 11 or 12 percent of classroom time.

Ratio between Direct and Indirect Influence

This is calculated by summing the columns 1, 2, 3, 4 and dividing by the sum of columns 5, 6, and 7 as given below:

Ratio between Direct and Indirect Influence = $\frac{Sum\ of\ columns\ (1-4)}{Sum of\ columns\ (5-7)}$

Sum of columns (1-4) = 44 + 5 + 28 + 32 = 109

Sum of columns (5-7) = 119 + 163 + 57 = 339

Ratio between Direct and Indirect Influence = $\frac{109}{339}$ = 0.32

Since the ratio is less than 1, it implies that the teacher is direct in the teaching process and influence on pupils.

Ratio between Positive and Negative Reinforcement

$$= \frac{Sum\ of\ columns\ (1-3)}{Sum of\ columns\ (6-7)} = \frac{77}{220} = 0.35$$

Since the ratio is less than 1, this implies the teacher is not a good teacher (has not a good mastery on the teaching and learning process).

Students' Participation Ratio

$$= \frac{Sum\ of\ columns\ (8\&9)}{Total\ Sum}$$

Sum of columns (8&9) = 19 + 18 = 37

Total = 495

Therefore, students' participation ratio = $\frac{37}{495}$ = 0.75

This implies that, the pupils do not participate during interaction in the classroom.

Steady State Cells

Looking at the cells diagonally from the top left to bottom right, we discover that these cells are the most filled cells. This implies that the teacher spends too much more than 5 seconds on one category.

Content Cross Cells

These are the cells (4,4) and (5,5). Given that these cells are heavily filled, particularly cell (5,5); indicates that the teacher lays a lot of emphasis on subject matter.

Constructive Integration Cells and Vicious Cells

These cells represent areas that are most sensitive to the teacher's positive and negative social skills. These cells reveal teacher's attention to classroom management and control as a distinctive feature from subject matter but alongside it. These areas are coloured green and yellow respectively.

- **Constructive Integration Cells**

The area marked green represent the constructive integration cells. It is observed that these cells are mostly filled out, implying that the teacher faces classroom management challenges along with the control of subject matter.

- **Vicious Cells**

The area marked yellow represent the vicious cells. It shows this area is heavily filled out, implying that the teacher is mostly concerned with subject matter.

Correlations

		Integrated Theme Learning	Content and Relevancy	Project-Based-Learning	Quality Education
Integrated Theme Learning	Pearson Correlation	1	.409	.278	.318
	Sig. (2-tailed)		.000	.062	.021
	N	110	110	110	110
Content and Relevancy	Pearson Correlation		1	.394	.491
	Sig. (2-tailed)			.030	.005
	N		110	110	110
Project-Based-Learning	Pearson Correlation			1	.416
	Sig. (2-tailed)				.016
	N			110	110
Quality Education	Pearson Correlation				1
	Sig. (2-tailed)				
	N				110

4.2 Inferential Statistics

In this section, the regression analysis is used. This is a technique used to establish a statistical model that can be used to assess the strength of a relationship between one dependent variable and independent variable(s). It helps in predicting outcomes of a dependent variable from one or more independent variable. Regression analysis helps in predicting how much

variance is being accounted in a single response (dependent variable) by a set of independent variables.

Regression Analysis on Integrated Theme Learning and Quality Education

Ho: There is no significant relationship between Integrated Theme Learning and Quality Education in Yaoundé IV subdivision.

Ha: There is a significant relationship between Integrated Theme Learning and Quality Education in Yaoundé IV subdivision.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.318[a]	.102	.100	.2616

a. Predictors: (Constant), Integrated Theme Learning

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.143	1	.143	6.811	.021[b]
	Residual	7.393	108	.068		
	Total	7.537	109			

a. Dependent Variable: Quality Education

b. Predictors: (Constant), Integrated Theme Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.903	.199		14.625	.000
	Integrated Theme Learning	.122	.084	.138	1.448	.021

a. Dependent Variable : Quality Education

- ***Reporting Results***

A simple linear regression was computed to predict the quality of education based upon integrated theme learning. Preliminary analyses were performed to ensure there was no violation of the assumption of normality and linearity. A significant regression equation was

found [F (1,108) = 6.811, p = 0.021], with an R^2 of 0.102. Predicted quality of education is equal to 0.122(Integrated Theme Learning) + 2.903, meaning the average quality of education changes by 0.122 for every unit change in the integrated theme learning and that the level of quality education will be 2.903 without considering integrated theme learning or when the value of integrated theme learning is zero.

Given that p = 0.021, and R = 0.318 there exist a statistically significant relationship between integrated theme learning and quality education which is weak and positive. And that 10.2% of the variance in the quality of education is explained by integrated theme learning.

Therefore, the researcher accepts the alternative hypothesis which states that: *There is a significant relationship between Integrated Theme Learning and Quality Education in Yaoundé IV subdivision* and rejects the null hypothesis; *There is no significant relationship Integrated Theme Learning and Quality Education in Yaoundé IV subdivision.*

Regression Analysis on Content Relevancy and Quality Education

Ho: There is no significant relationship Content Relevancy and Quality Education in Yaoundé IV subdivision.

Ha: There is a significant relationship between Content Relevancy and Quality Education in Yaoundé IV subdivision.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.491[a]	.241	.237	.2631

a. Predictors: (Constant), Content and Relevancy

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.062	1	.162	12.976	.005[b]
	Residual	7.475	108	.069		
	Total	7.537	109			

a. Dependent Variable: Quality Education

b. Predictors: (Constant), Content and Relevancy

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.776	.168		16.547	.000
	Content and Relevancy	.161	.164	.291	.949	.005

a. Dependent Variable: Quality Education

- ***Reporting Results***

A simple linear regression was computed to predict the quality of education based upon content and relevancy. Preliminary analyses were performed to ensure there was no violation of the assumption of normality and linearity. A significant regression equation was found [F (1,108) = 12.976, p = 0.005], with an R^2 of 0.241. Predicted quality of education is equal to 0.161(Content and Relevancy) + 2.776, meaning the average quality of education changes by 0.161 for every unit change in the content and relevancy and that the level of quality education will be 2.776 without considering content and relevancy or when the value of content and relevancy is zero.

Given that p = 0.005, and R = 0.491 there exist a statistically significant relationship between content and relevancy and quality education which is moderate and positive. And that 24.1% of the variance in the quality of education is explained by content and relevancy.

Therefore, the researcher accepts the alternative hypothesis which states that: *There is a significant relationship between Content and Relevancy and Quality Education in Yaoundé IV subdivision* and rejects the null hypothesis; *There is no significant relationship between Content and Relevancy and Quality Education in Yaoundé IV subdivision.*

Regression Analysis on Project-Based Learning and Quality Education

Ho: There is no significant relationship Project-Based Learning and Quality Education in Yaoundé IV subdivision.

Ha: There is a significant relationship between Project-Based Learning and Quality Education in Yaoundé IV subdivision.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416[a]	.173	.170	.2624

a. Predictors: (Constant), Project-Based-Learning

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.102	1	.102	11.481	.016[b]
	Residual	7.435	108	.069		
	Total	7.537	109			

a. Dependent Variable: Quality Education

b. Predictors: (Constant), Project-Based-Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.326	.241		9.636	.000
	Project-Based-Learning	.122	.100	.116	1.217	.016

a. Dependent Variable: Quality Education

- ***Reporting Results***

A simple linear regression was computed to predict the quality of education based upon project-based-learning. Preliminary analyses were performed to ensure there was no violation of the assumption of normality and linearity. A significant regression equation was found [F (1,108) = 11.481, p = 0.016], with an R^2 of 0.173. Predicted quality of education is equal to

0.122(Project-Based-Learning) + 2.326, meaning the average quality of education changes by 0.122 for every unit change in the project-based-learning and that the level of quality education will be 2.326 without considering project-based-learning or when the value of project-based-learning is zero.

Given that p = 0.016, and R = 0.416 there exist a statistically significant relationship between project-based-learning and quality education which is moderate and positive. And that 17.3% of the variance in the quality of education is explained by project-based-learning.

Therefore, the researcher accepts the alternative hypothesis which states that: *There is a significant relationship between Project-Based-Learning and Quality Education in Yaoundé IV subdivision* and rejects the null hypothesis; *There is no significant relationship Project-Based-Learning and Quality Education in Yaoundé IV subdivision.*

4.3 Multiple Regression Analysis on Quality Education

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.545[a]	.297	.221	.2625

a. Predictors: (Constant), Project-Based-Learning, Content and Relevancy, Integrated Theme Learning

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.233	3	.078	10.125	.022[b]
	Residual	7.304	106	.069		
	Total	7.537	109			

a. Dependent Variable: Quality Education

b. Predictors: (Constant), Project-Based-Learning, Content and Relevancy, Integrated Theme Learning

Coefficients[a]					
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.655	.346		7.672	.000
	Integrated Theme Learning	.083	.095	.094	.868	.088
	Content and Relevancy	.142	.072	.063	.587	.019
	Project-Based-Learning	.211	.104	.105	1.067	.002

a. Dependent Variable: Quality Education

- ***Reporting Results***

A multiple linear regression was calculated to predict the quality of education based upon integrated theme learning, content and relevancy and project-based-learning. Preliminary analyses were performed to ensure there was no violation of the assumption of normality, linearity and multicollinearity. A significant regression equation was found [F (3,106) = 10.125, p = 0.022], with an R^2 of 0.297. Primary school predicted quality of education is equal to 2.655 + 0.083(Integrated Theme Learning) + 0.142(Content and Relevancy) + 0.211(Project-Based-Learning). The quality of education levels increase by 0.083 unit for every unit increase in integrated theme learning and by 0.142 for every unit increase in content and relevancy, likewise a 0.211 increase in the quality of education is caused by a unit increase in project-based-learning.

4.4 Chapter Summary

This chapter deals with the presentation, interpretation and analysis of the data from different variables of the research topic. It is stratified into three main sections: the analysis of descriptive statistics (quantitative and qualitative data) in tables and cells, the inferential statistics in tables and multiple regression analysis. The Pearson product moment correlation is used to access the relationship between the variables. The acceptance of the alternative hypothesis through all analysis portrays the assertion that curriculum integration can greatly favour quality education in Cameroon primary schools.

CHAPTER FIVE
DISCUSSION OF RESULTS, CONCLUSION, RECOMMENDATIONS AND SUMMARY OF THE STUDY

This chapter discusses the findings of the study. The discussion of findings is supported with relevant literature and review theories presented in Chapter Two. This is done in conformity with the data gotten from the research questions. The chapter is also comprised of the conclusion, recommendations, problems faced, suggestions for further research and the Summary of the study.

5.1 Discussion of findings

The discussion of the findings presented in chapter four above are based on the research questions that guide the design and data collection for this work. The findings from the quantitative instruments is supported by qualitative data gotten through observation, those made by other researchers as well as some relevant theories.

1) R**esearch Question one: To what extent does integrated theme learning increase quality education in Yaounde six subdivision?**

From the analysis carried out, it shows that integrated theme learning significantly influences quality education in Yaounde six subdivision. This means that effective mobilization of teaching themes through work experiences and study programs will make teaching and learning meanful to real life thus increasing learner's innovative capacities and development of competencies needed for lifelong learning. Given that; P = 0.021 and R = 0.318. It can be accessed that ITL fosters quality education. However, 10.2% of the variance in quality education is accounted for by ITL. From the descriptive statistics, it showed that 98.2% of the respondents acknowledged that impacting learning experiences through ITL is pivotal to human and environmental growth of the child thus building on the necessary knowledge, attitudes, aptitudes and proficiencies needed for the intellectual growth of the child given that ITl in isolation accounts useless. This is explained by a statistically significant correlation which is weak but positive. QE is less realistic in the absence of ITL and vice versa.

In line with the analysis of qualitative data, the observation matrix for General Revision in class four shows that the teacher uses 77.7% of the time allocated for classroom interactions. This is in violation of 68% standard of classroom interactions consequently, pupils' talk during

the interaction is 14.1% of the time lesser than standard 20% of classroom time. Though the teacher uses direct influence in the teaching process, the ratio between positive and negative reinforcement is less than 01. This shows that the teacher is not a good teacher (has not got mastery of the teaching/learning process). Student's participation ratio (0.141) shows that pupils do not participate in the interaction thus bridgging the active participation rule of learners in the learning process. The content cross cells (4,4/5,5) indicates that the teacher emphasizes more on subject matter and faces classroom management challenges coupled with issues on the control of subject matter. Through this observation one can say with utmost confidence that he/she hasn't got a good knowledge of integrated practices laid down by progressivist and constructivist educationists. This is therefore, a call for concern in the race for quality assurance in Yaoundé six subdivision.

2) **Research Question Two: How does relevant content promote quality education in Yaounde six subdivision?**

Content (subject matter) and its relevancy is proven to be the most weighted curriculum elements that boosted the variances in QE by 24%. A statistical model [F (1.108) = 12.976, P = 0.005] with an R2 of 0.241 is found. Given that; P = 0.005 and R = 0.491 there exist a statistically significant relationship between the predictor (content/relevancy) and the dependent variable (QE) which is moderately positive. This shows that curriculum content is a prominent tool for equitable learning. From the descriptive data on content relevancy and QE 85.6% of respondents acknowledged the impact of the predictor on the dependent variable and 14.6% declared that the content does not suit the objective of the curriculum while another 72.8% assessed that the content is capable of transforming learners thus permitting positive outcomes linked to national goals for education.

Considering the observation matrix designed for Health Education in class six, the teachers direct or indirect talk is 76.5% of the teaching time; this is above the estimated (standard) time period (68%) of classroom interactions. Pupils' talk during the interaction is 15.20% on 20% standard. The proportion of silence or confusion (2.4%) is much lesser than 11 or 12% classroom interactions. Also, the ratio between negative and positive reinforcement (0.93) shows that the teacher is not a good teacher thus has no mastery of the teaching / learning process. The students do not participate effectively during the interaction as shown by 0.152% of classroom time. The steady state/ content cross cells affirmed that the teacher spends too much time on one category and emphasized more on subject matter respectively. This results

to challenges in classroom management and difficulty to control subject matter. The facts stated in this part indicate that the teacher is in experience and lacks knowledge on integrated learning strategies. This may result to unrealistic achievement of the aims, goals and objectives of learning.

3) **Research Question three: How does project-based learning affects quality education in Yaounde six subdivision?**

To access the degree of correlation between PBL and QE, a significant regression equation [F (1.108) = 11. 481, P = 0.16] with an R2 of 0.173 is found. Given that; P = 0.016 and R = 0.416 there exists a statistically moderate correlation between PBL and QE which is positive as 17.3% of the variance in QE is accounted for by PBL. This means the inclusion of innovative projects of varied capacities brings an added value to education through learning by doing an active involvement in the attainment of competencies.

The descriptive statistics on PBL attest that the practice has desirable consequences in bringing about innovative QE through 58.2%, 74.5% and 90.9% of respondent's power on items 1 -3 respectively and 96.4%, 96.3% on items 4 - 5. These opinions among others have fervently empowered the strength of PBL in the overall development of competencies needed by learners for human and societal enhancement.

A multiple regression analysis on QE is conducted to calculate the correlation based upon the combined effects of ITL, RC and PBL. These analyses are to ensure that they are no violation of the assumptions of normality, linearity and multilinearity. A regression model [F(3.106) = 10.125, P = 0.022] with an R2 of 0.297 is found. Given that; the predicted QE = 2.655 + 0.083 (ITL) + 0.142 (RC) + 0.211 (PBL). The quality of education increases by 0.083 unit for every unit increase in the ITL and 0.142 for every unit increase in relevant subject matter with a 0.211 increase caused by PBL. This multiple regression analysis shows a systematic working spirit within the predictors to achieve the resultant impacts. These results lead to the adoption of all alternative hypotheses.

5.2 Conclusion

In view of the findings, Curriculum features recommended for an integrated learning model (integrated themes learning, Content relevancy and project-based learning) have statistically significant impact/Consequences on Quality education. These could serve as spring board for curriculum planning, innovation, construction, evaluation and educational

measurement. All alternative hypotheses are retained base on the findings of the study and the null hypotheses rejected. Therefore, much attention must be given to resourceful strategies apt enough to transmit the stock of learning experiences to learners during classroom interactions in order to better improve on their ability to graps prerequisite knowledge, attitudes and skills together with the 4Cs needed for 21st century schooling. Education with and or through appropriate pedagogic strategies is likely to be effective in transforming individuals from childhood for human enhancement and community development in conformity to standard global efficient practices geared towards the environmental growth of the child and their preparation for the world of work. Considering that the teachers (academic guides, facilitators, co-planners and co-learners) "are not good teachers" in their manner of mobilizing resources during classroom interactions as the study unfolds, much is needed to be done in view of teachers' of competencies (experience, background, interests/willfulness) needed for quality teaching and learning vis-a-vis the integrated learning model. For this reason, we therefore express the opinion that this subject is opened to further research.

5.3 Recommendations of the Research Findings

The curriculum "a plan for learning," a topic that needs a lot of attention in regard to changing times in education. Education sponsors have been in dying need of productive ways to communicate learning experiences to learners through appropriate instructional strategies. However, as education remains the backbone of societal development prompting all stakeholders to concrete actions, it becomes prerequisite to hinge on some salient recommendations to government, school administration and the internal/external stakeholders. The recommendations of the findings were both specific and general. Everything being equal, they were put together as follows:

1) **To th**e g**overnment**

The government of Cameroon through the Ministry of Education should ensure more rigorous supervision on the planning, organization, development, implementation and evaluation of the primary school curricular in regard to the demands of quality assurance not only in education policy documents but also from the inputs, processes and products vested in the sector by doing so teachers will consciously ensure that teaching/learning experiences are representative of students/societal needs and interests.

The government should strictly ensure that pedagogic seminars are enriched and made compulsory for teachers with indiscriminate pre and in-service training for both private and public sectors. This will permit for teachers' updates and knowledge on current education practices, info structural and human resource management.

The government should provide timely availability of all necessary resources (textbooks, curricular, teacher guides, high tech tools) among other infrastructural and info structured equipment and an endowed manpower for smart learning.

To increase the impact of education, the government should develop and implement policies supporting collaboration between private/public and socioeconomic sectors. This will empower co-curricular interactions thus impacting learners' proficiencies, competencies and skills at childhood.

2) To the school Administration

The administration should ensure strike follow up of her teaching staff through impromptu inspections, rigorous control of lesson plans and cautions could be made serious with support from the ministry of education.

The administration should make sure that all teachers attend pedagogic seminars while organizing pre-service and in-service training and workshops on annual basis to boost teachers' performances with revised curricular experiences and current pedagogic methods. This will impact seriousness on teachers from administrative stakeholders.

The administration should boost learner’s innovative capacities by empowering the link between various schools and the sociocultural and economic milieu through community service, internships, field trips, games and public of projects on feast days. These activities will cultivate in learners the spirit of active participation in society, problem solving skills and responsible behaviors to their actions thus awakening the crucial role they stand to play in the personal growth and community development.

3) To the National and External Communities

The Cameroon government and the ministry of education should work in alliance with other stakeholders such as the UN specialized agencies (UNESCO, UNICEF, UNDP), Non-governmental Organizations (NGOs), and private individuals including classroom teachers in designing a blue print for transformational education that will address the needs/interests of

learners and in carrying out comparative studies on curricular experiences and their impact on innovation and strict measurement of learning impact on the continent. These national and international stakeholders should organize in-service or tours for teachers to improve on their competencies, critical thinking and self-sufficiency.

Through combined efforts, these bodies could create more preparatory programs to equip trainers with adequate skills thus creating opportunities to be trained as professionals through sensitization schemes like conferences, symposiums and various communication media coordinated by specialists and experts across the globe by doing so teachers will be conscious of the great task that awaits them.

5.4 Limitations of the Study

1. The outbreak of Covid 19 pandemic which resulted in the restriction of movements, lock downs and temporary closure of schools negatively influenced the journey to carry out this research. It became challenging to administer the research tools. All the public schools visited operated on extensions (shifts) thereby narrowing the respondent's population thus promting dual visitations.
2. Some schools administrators/teachers were reluctant and skeptical to participate through the questionnaires. They claimed it could lead to the circulation of information that could complicate their institutions and thus withheld some vital data. They viewed the practice as invasion and daring to their professional capabilities whose consequences were incomplete questionnaires.
3. Furthermore, the researcher relied on the integrity of the cross-sectional survey (observation) data, it became possible that the participants did not follow the flow of things in trying to impress the observer thus putting more time on one or more categories than others. This made them "unfit" for the job (see observation matrixes).

5.5 Suggestions for Further Research

On account that this work was delimited in geographical context, content and scope, the researcher is bound to make the following recommendations for further research:

1. A research of the same capacity could be carried out in other parts of the country through different instruments such as: interviews, focus group discussion, content analysis and participant observation.

2. A comparative or cross-sectional survey on the effects of CI on teaching/learning could also be carried out in various schools in the country given that they are not managed in the same manner
3. A study of this category could be carried out at the secondary and high school levels to measure the actual contributions of the integrated teaching/learning model in transforming education to current pedagogic, socio cultural, economic and technological advancements in this era of the "new education."

5.6 Summary of the Study

This research work is titled Curriculum Integration: An Aspect of Quality Education in Cameroon Primary Schools. The control variable (Curriculum integration) examined key issues in the Curriculum of Primary schools such as integrated themes learning, Content relevancy and Project-based learning. These three elements formed the research questions and hypothesis that guided its design. The questionnaire that facilitates data collection is also a product of these indicators. The indicators from the main variable are broken down as follows:

Integrated theme learning, a major element in the curriculum of primary schools in Cameroon is broken down to include empowered learning, representative to life occurrences, purposive learning and learner centred. All these permitted for the construction of the questions in Section B of the questionnaire entitled integrated theme learning.

Furthermore, the second indicator of the independent variable (Relevant Content) is broken down to include Curriculum content, content utility, curriculum objectives and content significance/relevance in view of learners needs and interests. These are the elements that are used to construct the questions presented in section C of the questionaire.

The 3rd indicator of the study (project-based learning) a strategy developed to enhance learning experiences in the primary sector is viewed in terms of: supervised team work, creativity/critical thinking, problem solving/collaboration, communication and extra-curriculum. These means that the questions in section D of the questionnaire are guided by these items.

The dependent variable (quality education) on the hand was studied under carefully selected indicators such as: the learning environment, the learners, teaching methods, quality content and outcomes that encompass knowledge, attitudes and skills, infrastructure and info structure, competent teacher experience, human resources etc. It is on these bases that the

questions in the last part of the questionnaire are formed. However, the research questions that guided the questionnaire drilled to these assumptions that are later termed hypothesis.

The objective of the study is to investigate how curriculum integration influences quality education in Cameroon primary schools. In other words; the objective is to find out if there is a significant correlation between curriculum integration and quality education in Cameroon public and private schools. In conducting this investigation, the researcher chooses to use the mixed research approach (grounded in a cross-sectional survey) which thus makes use of questionnaires and observation. While the subject compelled us to use the probability sampling technique in selecting participants, the simple random category (sampling without replacement) is use. However, out of every 5 (five) government institutions the researcher chose one private school. Through this technique, a sample of 110 participants directly accounts for the data obtained. Classroom observation is conducted to witness effective mobilization of elements prompting equity through implementation by teachers among others.

The study is carried out in 11 primary schools in the Mfoundi Division (Yaounde six subdivision) and the data gotten is grouped according to the themes and entered into SPSS for analysis using the Pearson product moment correlation (PPMC). It is then interpreted to support the facts/opinions stated by participants. The results proves that Curriculum integration has a statistically positive significant correlation on quality education. Just as the topic states, its findings confirms to the fact that integrating the curriculum has positive impacts to the achievement of quality education. Though marked by a few crystalline challenges drawn from the problem, the recommendations to various education stakeholders, there is low quality education resulting from:

- Education policy which is top-down consequently, the education orientation that accompanies it is unfortunately a transactional one. These practices are old fashioned and out of use in the 21st century teaching and learning thereby affecting the curriculum structure/ content and its subsequent implementation.
- Lack of competent staff: Teachers are not equipped with the necessary competencies/ know how needed for 21st century teach/learning. These skills which could be gotten from pre-service/in-service training, pedagogical meetings and conferences, tours or other organized programs are not being adequately taken care of.
- Policies supporting collaboration between the public/private and the socio-economic sectors to showcase teachers' capacity and consequently learners performances vis-a-

vis learning objectives laid down in the curriculum have not been addressed in the overall chain.

- Lack of supervision or follow up in view of planning instructional materials, implementation and evaluation of the curriculum content and objectives is seriously detrimental to 21st century learning.
- Lack of combined efforts in creating opportunities for professional enrichment, sensitization schemes and the non-involvement of teachers in curriculum development process most expecially is resulting to lack of knowledge in regard to the philosophy of education and current practices. The question here is how can someone successfully/ implement a blue print that he/she has limited knowledge about its background, intended aims; goals and objectives? These in the capacity of this study are the major hurdles/vampires retarding equitable learning in Yaounde six subdivision.

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APPENDICES

* Questionaire

* Observation guide

* Sustainable development Goals

* Research authorization

APPENDIX 1: QUESTIONNAIRE

THE UNIVERSITY OF YAOUNDE I
****
FACULTY OF EDUCATION
****
POSTGARDUATE SCHOOL FOR SOCIAL AND EDUCATIONAL SCIENCES
****
DOCTORATE UNIT OF RESEARCH AND TRAINING IN SCIENCE OF EDUCATION AND EDUCATIONAL ENGINEERING

S
F **E**

UNIVERSITE DE YAOUNDE I
****
FACULTE DES SCIENCES DE L'EDUCATION
****
CENTRE DE RECHERCHE ET DE FORMATION DOCTORALE EN SCIENCES HUMAINES, SOCIALES ET EDUCATIVES
****
UNITE DE RECHERCHE ET DE FORMATION DOCTORALE EN SCIENCES D'EDUCATION ET INGINIERIE EDUCATIVE

QUESTIONAIRE FOR TEACHERS

Dear respondent, I am Agu Ajong Gracious, a Master research student in the Department of Curriculum and Evaluation (Faculty of Education, University of Yaoundé1). This questionnaire is designed to elicit your response to various items related to Primary Education in the Yaoundé six subdivision - English subsystem. Your participation in this research will be highly appreciated and your responses will be treated with confidence or utmost confidentiality. The information received will be used for research purposes only.

SECTION A: Demographic information

Fill in the Following Information

Name of institution:.....
Level: .....Grade: …….....
Work experience: ……...Gender:.....
Date: .....Tell ….....

SECTION B: Integrated Theme Learning

TASK: Tick the column of the response that best fits your opinion in terms of how you agree with the statements from the alternatives provided in the tables below. Use the key.

KEY: Strongly agree (SA), Agree (A), Disagree (DA), Strongly disagree (SD)
1 2 3 4

S/N	Items	SA	A	DA	SD
1	Integrated themes make teaching relevant to real life.				
2	The themes do not connect appropriately to day to day occurrences.				

3	I cannot integrate the themes to learning experiences in my classroom.				
4	The themes are not representative of the schooling duration				
6	Learning takes place best in environments where students are empowered to learn				
7	These themes are vague and very unnecessary in the 21st century				
8	Teachers play the rule of facilitators since integration is learner centred				

SECTION C: The Content and its Relevance

S/N	**Items**	SA	A	DA	SD
9	The Subject matter doesn't suit the objectives of the curriculum				
10	The Content is not that realistic to learners' life				
11	Subject matter is a means not a goal to teaching and learning objectives.				
12	Teachable units are inappropriate to learners with regard to the Competency-Based Approach				
13	The material is too much for the children to assemble and make meaningful relationships				
14	My students are up to standard in relation the curriculum content				
15	There are no instructional materials to boost my personal research as a teacher				
16	The content is very much challenging to learners				

SECTION D: Project-based Learning

S/N	**Items**	SA	A	DA	SD
17	Pupils have not been introduced to basic farm techniques since we don't have a school farm.				
18	During team work some pupils do the work for others				
19	Small group studies and whole class discussion can better students' knowledge and permit for the application of knowledge, attitudes and skills through learning by doing				

20	Projects are of no use to primary school pupils, besides they are too expensive for the school				
21	Students and teachers need to plan and work together for better outcomes.				
22	Collaboration is not necessary to improve pupils learning				
23	Out of school visits to recreational sites (gardens, supermarkets, stadia and swimming pools) are never in our pedagogic program				

SECTION E: Assessment of Purposeful Outcomes and Learning Achievements

S/N	Items	SA	A	DA	SD
24	A healthy school environment brings desirable output in the learner, thus building on their attitudes, skills, knowledge and aptitudes needed for educational advancement.				
25	Quality education is only about what goes on in the classroom				
26	Learners must be supported by their families through varied forms of motivation while at school.				
27	Equitable learning is meaningless to pupils nowadays. It is a waste of time and resources.				
28	Our school does not have a well-equipped computer laboratory and or basic ICT equipment for practical lessons				
29	The monthly assessment is often received with mixed feelings. I think it is not helping the learners				

SECTION F: Individual and Small Group Studies

S/N	Items	SA	A	DA	SD
30	Pupils do not cooperate when allowed to themselves				
31	Pupils who are willing to learn are pivotal products for societal development. This can be achieved through collaboration and team spirit				
32	I hardly permit pupils to work on their own because they know nothing				
33	Leadership skills are never part of my lesson planning.				

34	pupils show-off their talents when put into small groups with given tasks				

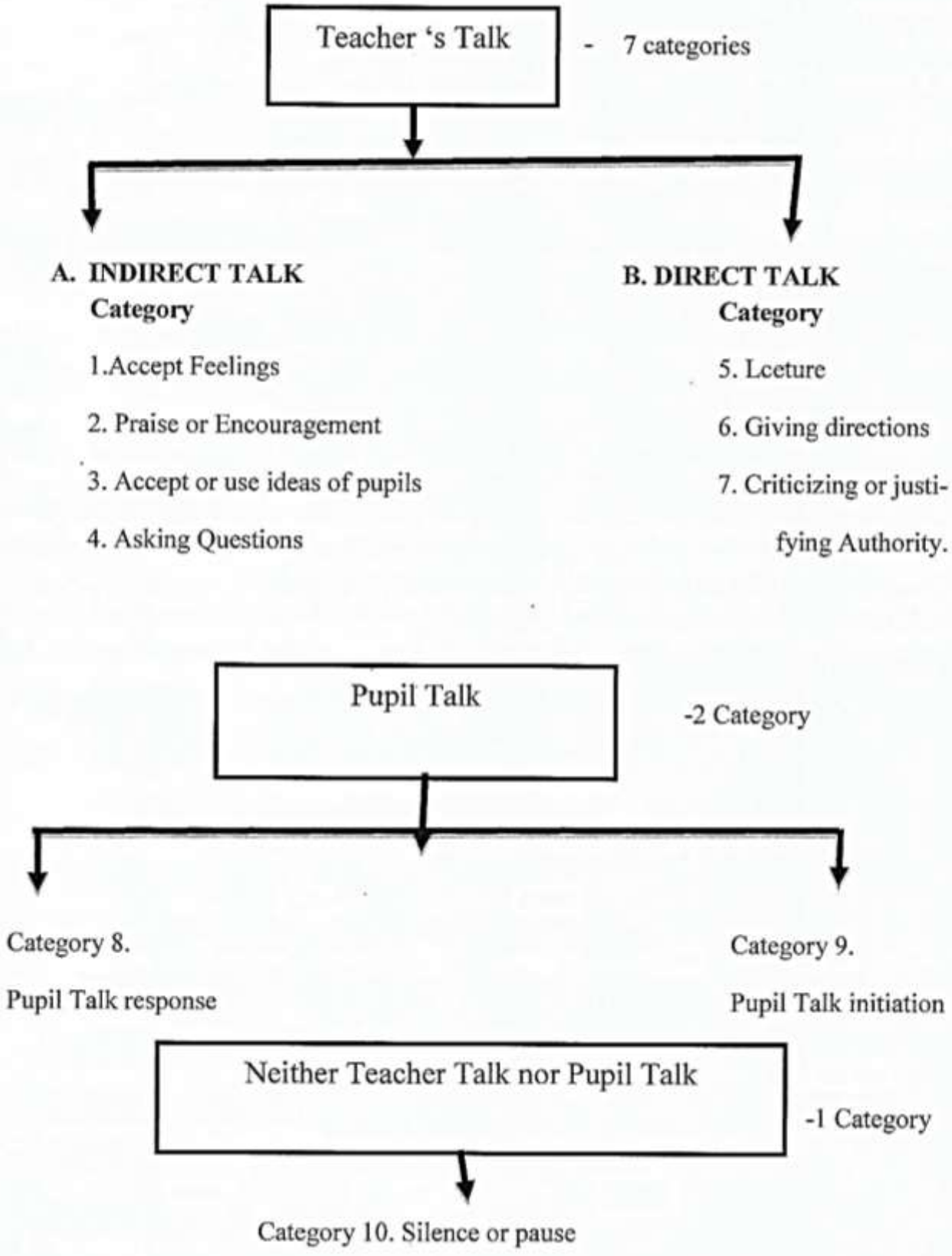
SECTION G: Well managed classrooms and skillful assessment of learning outcomes

S/N	ITEMS	SA	A	DA	SD
35	My class is well organized with not more than 30 pupils annually				
36	Our assessment procedures are not varied. This is to maintain strict measurement of training impact and objectives of the curriculum				
37	Boys and girls sit on separate tables to avoid getting distracted during lessons.				
38	The pupils are too many because two classes have been merged. There is no space for follow up and cautions during lessons.				

NB: Items, means statements

THANKS FOR YOUR COOPERATION!

APPENDIX 2 : OBSERVATION GUIDE



APPENDIX 3: SUSTAINABLE DEVELOPMENT GOALS

APPENDIX 4: RESEARCH AUTHORIZATION

REPUBLIQUE DU CAMEROUN
Paix – Travail – Patrie
*****
UNIVERSITE DE YAOUNDE I
*****
FACULTE DES SCIENCES DE L'EDUCATION
*****
DEPARTEMENT DE CURRICULA ET EVALUATION

REPUBLIC OF CAMEROON
Peace – Work – Fatherland
*****
THE UNIVERSITY OF YAOUNDE I
*****
THE FACULTY OF EDUCATION
*****
DEPARTMENT OF CURRICULUM AND EVALUATION

The Dean

N° 473 /22/UYI/FSE/VDSSE

AUTORISATION FOR RESEARCH

I the undersigned, **Professor BELA Cyrille Bienvenu,** Dean of the Faculty of Education of the University of Yaoundé I, hereby certify that **AGU AJONG Gracious**, Matricule **18Z3087**, is a student in Masters II in the Faculty of Education, Department: ***CURRICULUM AND EVALUATION***, Specialty: ***CURRICULUM DEVELOPMENT AND EVALUATION***

The concerned is carrying out a research work in view of preparing a Master's Degree, under the supervision of **Pr. EBANGA Maureen TANYI.** His work is titled ***« Curriculum content and employability of higher education in Cameroon: the case of the university of Yaounde 1 »***

I will be very grateful if you provide him all the information that can be helpful in the realization of his research work.

This Authorization is to serve the concerned for whatever purpose it is intented for.

Done in Yaoundé, le 25 JUIL 2022

For the dean, by order

UNIVERSITE DE YAOUNDE I THE UNIVERSITY OF YAOUNDE I FACULTE DES SCIENCES DE L'EDUCATION THE FACULTY OF EDUCATION
Le Vice-Doyen