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DOCTORAL RESEARCH AND TRAINING CENTRE IN SOCIAL AND EDUCATIONAL SCIENCES
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IMPLEMENTATION OF THE NEW 2018 CURRICULUM AND CONSTRUCTION OF INDIVIDUAL AND COLLECTIVE COMPETENCES IN NUMERACY AND LITERACY IN PUBLIC PRIMARY SCHOOLS IN YAOUNDE VI SUB-DIVISION.

A dissertation submitted and defended on 18th September 2025

In the Department of Curriculum and Evaluation

Specialisation: Fundamental Research

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(Registration No 18Z3082) under my humble supervision.

.....

Pr. MGBWA Vandelin

Faculty of Education

University of Yaoundé I

To

My family

ACKNOWLEDGEMENTS

A dissertation of this magnitude could not have been realized by the researcher alone without assistance from others. I received moral, financial, intellectual and emotional support from many people and I remain indebted to them.

First of all, I wish to express my sincere thanks and gratitude to my supervisor Prof. Mgbwa Vandelin, Vice Dean in charge of Research and Cooperation at the Faculty of Education who accepted to supervise this work, his expertise, assistance, guidance, comments, remarks and his unfailing fatherly support contributed greatly to the realization of this wonderful piece of work.

My profound gratitude also goes to my assistant supervisor Dr. Ngome Felicia for providing me with insightful explanations and relevant material that gave this work a scientific predisposition.

My sincere thanks and appreciation to all my lecturers in Department of Curriculum and Evaluation whose enlightening suggestions influenced my thought and made it possible for me to work on the study.

My appreciation goes to all the headteachers and teachers of the primary schools for their collaboration in providing audience, answering questionnaires and other pieces of information that give this work a way forward.

My sincere gratitude goes to my friends and course mates who assisted me with material, contributed during our focus group discussions and give me additional support by reading through the different parts of this work.

Special thanks to Mrs. Akonchong Elisabeth, Patience Akonchong and Doctor Deba Ebude Lucy Enowmah and to all whose encouragement has been of great magnitude in time of need.

A heartfelt appreciation goes especially to Mr. Sondong Joseph for his intervention to the realization of this work.

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LIST OF ACRONYMS AND ABBREVIATIONS

ANOVA	: Analysis of Variances
BEPC	*: Brevet d'études de Premier Cycle*
CBA	: Competence Based Approach
CL	: Cooperative Learning
CUDC	: Curriculum and Development Unit
ETSSP	: Education and Training Sector Strategy Paper
GESP	: Growth, and Employment Strategy Paper
ITL	: Integrated Team Learning
KBC	: Knowledge-Based Curriculum
LMD	*: Licence-Master-Doctorat*
MDG8	: Eight Millennium Development Goals
MINEDUB	: *Ministère de l'éducation de Base* (Ministry Of Basic Education)
OECD	: Organisation for Economic, Cooperation and Development
OED	: Oxford English Dictionary
PASEC	: *Programme d'analyse des Systems Éducatifs de la CONFEMEN* (Program for the Analysis of Education Systems of the CONFEMEN)
PBJ	: Project-Based Learning
PRSL	: Poverty Reduction Strategy Paper
SCI	: Socio-Constructivist and Interactive Model
SDGH	: Forth Sustainable Development Goals
STEM	: Science, Technology, Engineering And Mathematics
SWAP	: Sector-Wide Approach
UNESCO	: United Nation Educational, Scientific and Cultural Organization
UNICEF	: United Nations International Children's Emergency Fund
ZPD	: Zone of Proximal Development

ABSTRACT

This study evaluates the implementation of the new 2018 curriculum in Cameroon and its effects on the construction of individual and collective competences in literacy and numeracy. Conducted in the public primary schools of the Yaounde VI sub-division, the research quantitatively tests the influence of three modalities of the independent variables on student achievement: teacher capacity building (IV1), instructional delivery (IV2), and resource availability (IV3). The study's theoretical framework is drawn on Fullan's theory of educational change to analyze the macro-organizational conditions of implementation, and on the socio-constructivist and interactive model of competence by Jonnaert and Vander Borght to understand the micro-pedagogical foundations of the competency-based approach targeted by the reform. This dual perspective allows for an analysis of both the systemic levers of change and the nature of the pedagogical transformation required at the classroom level.

From a quantitative approach and based on correlation and linear regression analyses, the results are particularly telling and allow for a hierarchisation of success factors. First, the study reveals that instructional delivery (IV2), which includes the pedagogical leadership of head teachers and the support of supervisory bodies, is the most powerful predictor, alone explaining 88.3% of the variance in student competences ($R=0.913$, $p<0.05$). Then, teacher capacity building (IV1) proves to be an almost equally decisive factor, explaining 80.4% of the variance ($R=0.897$, $p<0.05$). Finally, the availability of resources (IV3), although statistically significant, has a lesser influence, explaining 54.3% of the variance ($R=0.737$, $p<0.05$).

The study reveals that the success of the new 2018 curriculum implementation is fundamentally a matter of human and organisational capital. The most decisive factors are effective institutional leadership that creates a favorable ecosystem, and well-trained, competent, and supported teachers in transforming their practices towards a pedagogy of the problem-situation. While material resources are a necessary condition, they are not sufficient, and their effect is subordinate to the quality of the actors and the system that surrounds them. The suggestions emanating from the study therefore recommend prioritising continuous professional development for teachers and the training of managers (head teachers, inspectors) in pedagogical leadership, while ensuring a strategic and equitable provision of resources. This study thus provides clear lines of action for policymakers aiming to transform curricular reform into a tangible and sustainable improvement in learning for all students.

Key words: new2018 curriculum, implementation, construction of competence, primary school pupils, literacy and numeracy.

RÉSUMÉ

La présente étude évalue la mise en œuvre du nouveau curriculum 2018 au Cameroun et ses effets sur la construction des compétences individuelles et collectives en littératie et en numératie. Menée dans les écoles primaires publiques de l'Arrondissement de Yaoundé VI, la recherche teste l'influence de trois modalités de la mise en œuvre sur les résultats des élèves : le renforcement des capacités des enseignants (VI1), le soutien institutionnel (VI2) et la disponibilité des ressources (VI3). Le cadre théorique du changement éducatif de Fullan pour analyser les conditions macro-organisationnelles de la mise en œuvre, et le modèle socioconstructiviste et interactif des compétences de Jonnaert et Vander Borght pour comprendre les fondements micro-pédagogiques de l'approche par compétences visée par la réforme ont permis d'analyser à la fois les leviers systémiques du changement et la nature de la transformation pédagogique requise au niveau de la classe.

Obtenus à partir d'une approche quantitative et basés sur les analyses de corrélation et de régression linéaire des données collectées auprès de 51 enseignants du CM1 et CM2, les résultats permettent de hiérarchiser les facteurs de réussite. Tout d'abord, l'étude révèle que l'offre institutionnelle (VI2), qui comprend le leadership pédagogique des chefs d'établissement et le soutien des organes de tutelle, est le prédicteur le plus puissant, expliquant à lui seul 88,3% de la variance des compétences des élèves ($R=0,913$, $p<0,05$). Ensuite, le renforcement des capacités des enseignants (VI1) s'avère être un facteur presque aussi décisif, expliquant 80,4 % de la variance ($R=0,897$, $p<0,05$). Enfin, la disponibilité des ressources (VI3), bien que statistiquement significative, a une influence moindre, expliquant 54,3% de la variance ($R=0,737$, $p<0,05$).

L'étude montre que le succès de la mise en œuvre du nouveau curriculum 2018 est fondamentalement une question de capital humain et organisationnel. Les facteurs les plus décisifs sont un leadership institutionnel efficace qui crée un écosystème favorable, et des enseignants bien formés, compétents et soutenus dans la transformation de leurs pratiques vers une pédagogie de la situation-problème. Si les ressources matérielles sont une condition nécessaire, elles ne sont pas suffisantes et leur effet est subordonné à la qualité des acteurs et du système qui les entoure. Les suggestions issues de l'étude préconisent donc de privilégier le développement professionnel continu des enseignants et la formation des cadres (chefs d'établissement, inspecteurs) au leadership pédagogique, tout en assurant une mise à disposition stratégique et équitable des ressources. L'étude fournit ainsi des lignes d'action claires pour les décideurs politiques visant à transformer la réforme du curriculum en une amélioration tangible et durable de l'apprentissage pour tous les élèves.

Mots clés : nouveau curriculum 2018, mise en œuvre, construction de compétences, élèves de l'école primaire, littératie et numératie.

GENERAL INTRODUCTION

0.1. Background and justification of the study

This section aims to highlights the context that justifies this research. It is a question of informing on the motivations that underlie the present study. Precisely, it is important to present the context of the study, the justification of choice of the subject, the statement of the problem, research questions, research objectives, originality, relevance of the study, delimitation /scope of the study, definitions of the key concepts and organisation of the study.

0.1.1. Contextual background

The 1996 constitution of Cameroon in its preamble guarantees the right of a child to education. This manifest right of the state is taken up and reinforced in the law no 98/004 April 1998 which stipulates in articles 4, 5 and 11 as follows:

Article 4: The general mission of education is to train the child for intellectual, physical, civic and moral development and harmonious integration into society, taking into account economic, socio-cultural, political and moral factors.

Article 5: Under the general mission defined in article 4 above, education shall have the following objectives:

- The training of citizens rooted in their own culture, but open to the world and respectful of the general interest and the common good;
- Training in the great universal ethical values of dignity and honour, honesty and integrity, and a sense of discipline;
- Education for family life
- The promotion of national languages;
- Initiation of the culture and practice of democracy, respect for human rights and freedom, justice and tolerance, the fight against all forms of discrimination, love of peace and dialogue, civil responsibility and the promotion of regional and sub-regional integrations;
- The culture of love of effort and hard work, the quest for excellence and the spirit of partnership;
- The development of creativity, initiative, and entrepreneurship;
- The physical, sporting, artistic and cultural training of the child,

- The promotion of hygiene and health education.

Article 11: (1) The state shall ensure the elaboration and implementation of the education policy to {which} the decentralized territorial authorities, families as well as public and private institutions. To this end, it shall:

- Decide on the objectives and general orientations of national education and training programmes, in connexion with all sectors of national life with a view to professionalization of education;
- Ensure the permanent adaptation of the education system to the national economic and socio-cultural realities as well as to the international environment, particularly with regard to the promotion of scientific and technological education, bilingualism and the teaching of national languages;
- Set the conditions for the creation, opening and operation of public and private education structures and ensure their control; draw up and update the « school mapping « (la carte scolaire)

(2) It shall be assisted in these tasks by a consultative body, the national council of education, whose organisation, powers and functioning shall be determined by decree of the president of the republic.

In view of becoming an emergent nation by the year 2035, the government developed the growth and employment strategy paper (GESP) in 2009 to provide major orientations to all sectors of the society. The document tasked ministries in charge of education to develop the human capital required to attain this vision. The 2013-2020 education and training sector strategy paper (ETSSP) clearly defines the missions of each sub-sector in the educational system. The new 2018 curriculum for the primary schools whose implementation is on-going is in cognisance with this vision. This curriculum is designed to guide the development of knowledge, skills and attitudes in the learners and to set foundations for learning with emphasis on science, technology, engineering and mathematics (STEM). The curriculum therefore responds to one of the key missions assigned to the ministry of basic education (MINEDUB). This new pedagogic tool replaces that of 2000 for that of 2000 for the primary.

The old curriculum 2000 which Cameroon was using was a knowledge-based curriculum (KBC). This curriculum focuses on subject content and what learners can know and memorise rather than what they can do. The learning process is teacher centred with minimum

involvement of learners. The teacher provides the subject content concepts. The main aim of the 2000 curriculum was to develop learners' content - knowledge. The increase in the repetition rate of primary school children to the tone of 40% with regards to the implementation of the old primary school curriculum leads to the development of the new 2018 curriculum. The new curriculum focuses on what the learners can do and apply in different situations by developing skills, attitudes and values in addition to knowledge and understanding. The learning process is learner focused where the learner is engaged in active and participatory learning activities. Learners build new knowledge on prior knowledge.

The current approach use on the implementation of the 2018 curriculum is the competence -based approach (CBA). The CBA facilitates the development of competences through the practice of project-based learning (PBL), cooperative learning (CL) and integrated theme learning (ITL). The philosophy of CBA requires that learning should be based on the potential of the learners. The learner should be responsive for his or her own learning. It is important for the classroom teacher to diligently determine the characteristics of the learners. The implementation of the new 2018 curriculum is new in the educational system in Cameroon. It was introduced in 2018/2019 academic year. The implementation has given primary school teachers a very hard time in the field. By introducing this curriculum, it was hope teachers would teach using a more integrated approach that will help learners become more competent. However, the practices of teachers in the classroom seem not to give the learners the opportunity to construct individual and collective competences. Many reasons may account for this irregular situation. May be because of the challenges teachers in Yaoundé (IV) sub-division are facing in the implementation process. While some primary school teachers see the new 2018 curriculum as good, others received it with a lot of resistance, but all of their dreams remain the making of the leaners into autonomous users for the betterment of the society.

0.1.2. Justification of the study

In Cameroon, it is disheartening in the 21st century that many primary school children have fundamental learning gaps in the construction of reading and numeracy skills and they actually go through primary school and complete without knowing how to read fluently and use numbers accurately. It holds an uncertain future for that generation. This makes this study contextually relevant as it focuses on contextual challenge that the country and its younger generation is going through. This study hopes to examine the underpinning reality and tender possible ways to remedy the situation.

Innovation is key to this present time. The ministry of basic education brought in the new curriculum to primary schools in 2018. This new 2018 curriculum has brought a significant change to the culture of teaching and learning in public primary schools in Yaounde VI sub-division. There is a need of such a study to understand the challenges teachers and pupils are going through since 2018. This study is relevant as it looks at an already existing challenge. Moreover, teachers are struggling to work along with the curriculum due the changes in it. The successful implementation of the new 2018 curriculum depends how prepared the teachers are and this study looks at the implementation process, which is proving to the teacher's nightmare in the new curriculum. We hope to unravel the limitation in the implementation process in order to give teachers the best way out.

Competences are the core of every society today. Primary school pupils are expected to adapt to competences so that they can solve their own problems, help their families and grow with it. That is why the new curriculum is imbedded by these competences. This study comes in to examine some of the challenges these pupils are facing in the process of competence construction in order to design possible solutions to them.

0.2. Statement of the problem

The Cameroon basic educational system has experienced major changes over the last three decades in terms of education orientation law of April 14, 1998, the poverty reduction strategy paper(PRSP) in 2003-2009, the sector wide approach (SWAp) in 2005, the growth and employment strategy paper(GESP) 2009-2020, the eight millennium development goals (MDG8) in 2000, the forth sustainable development goal (SDG4) in 2015, the education for all by UNESCO (2000) and more precisely curricular reforms articulated around competences. Such an evolution is manifested in the new 2018 curricula, through intentions and instructions displayed in school programs, changes envisaged in evaluation and in the way of designing learning. Such curriculum reforms highlight the fact that in Cameroon learners suffer from a deficit in the quantity and quality of education provided in primary school.

Looking at the data on the PASEC 2019 international assessment of learning outcomes report for language scale, at the start of the primary school it appears overall 44.5% of the pupils are above the competence threshold. On the other hand, 55.5% of the pupils have not reached the language competence threshold. This second category of pupils has difficulties in perfecting their deciphering of writing, their oral comprehension competences and their understanding of written words. We observe that larger proportions of Guineans pupils (76.7%), Togolese

(75.6%), Ivorian (66.9%), Chadian (66%), Burkinabe (65.8%), Beninese (62.4%) and Cameroonian (60.6%) do not have the competence allowing them to continue their learning without difficulty. However, in all ten countries, at least a quarter of pupils are at level 1 on the proficiency scale and below. Significant proportions of pupils are experiencing significant languages learning difficulties in these countries. By being below level 1 on the proficiency scale, these pupils are not demonstrating sufficient basic language competence.

At the end of schooling, it appears overall that 52% of the pupils are below the reading competence threshold. These pupils have, for example difficulty in combining two pieces of information explained or in making simple inferences in narrative or informative text. The Gabonese educational system places almost of its pupils (i.e. 93.4%) above the minimum level of competences expecting in reading. Pupils in Benin (75%), Senegal (74.7%), Congo (58.4%) and Cameroon (53.7%) obtain satisfactory performance in the PASEC reading evaluation by positioning the majority of their pupils above sufficient threshold. Cameroon and Congo are the two countries that have relatively high share of pupils at level 1 of the scale.

The PASEC 2019 competences scales in Mathematics in the early schooling, across all 14 countries 28.8% of pupils did not reach the proficiency threshold. Thus, these pupils are more likely than those above the threshold not have mastered the mathematics competences to read numbers, to compare numbers, complete logical sequences and /or perform operation (addition and subtractions) on numbers less than 50. The vast majority of countries evaluated were able to position more pupils in the higher scales, that is to say above the competence threshold .It is following by five countries that have a relatively high percentage of pupils above the proficiency threshold. These are Gabon (88.5%) Congo (86.3%), Madagascar (79.4%), Senegal (79.1%) and DRC (76.9%). A second category of countries (Ivory Coast, Niger, Tchad , Benin, Burkina Faso, Guinea and Cameroon) has a percentage of pupils above the competences threshold of between 58.1% and 68.1%. Togo is the only country where less than 50% of pupils are above the proficiency threshold.

At the end of the primary school, more than 50% of pupils are below the threshold of competences in mathematics. For example, these pupils have difficulty answering short questions using the three processes assessed: knowing, applying and solving problems. In the area of numbers and operations, they have difficulty performing operations with decimal numbers. Less than a third of the countries participating in the evaluation have a significant share of pupils above the sufficient threshold on mathematics proficiency scale. Gabon (66.7%), Senegal (65%), Burkina Faso (62.5%) and Burundi (60.9%) constitute these group countries

where the vast majority of pupils are above the sufficient threshold of competences in mathematics. Nine of the fourteen PASEC 2019 countries have very high proportions of pupils below the sufficient threshold of mathematics; Chad (88.5%), Ivory Coast (82.8%), Democratic Republic of Congo (81.1%), Cameroon (67%), Congo (66.6%), and Togo (63%). If the competence scale shows that these pupils are likely to experience significant difficulties in continuing their school career properly, it also indicates that many of them, located below level 1 of the scale, experience very great difficulties in Mathematics, which could expose them to dropping out of school. This last observation concerns approximately one third of pupils in most countries: Chad (50.8%), Niger (43.7%), Ivory Coast (42.1%), Democratic Republic of Congo (37.2%), Madagascar (36%), Togo (32.1%), and Cameroon (30.1%).

From the above statistics, it is presumed that the pupil's construction of individual and collective competences in numeracy and literacy precisely in Cameroon calls for improvement. While it has been mediocre in literacy, in numeracy it is below average which is a similar phenomenon in the case study schools. Many factors could account for this. However, from my personal observation, the new 2018 curriculum is not effectively implemented in the case study schools. The primary school teachers in particular face many challenges in order to adjust their mission and practices to new needs of pupils and their society. Many of these teachers were not trained in terms of the implementation of the new 2018 curriculum, thus some have not been adequately prepared during their in-service training, many do not have a good mastery of the syllabus design, others do not have the necessary didactic materials and facilities to carry out their lessons, some lack the kind of knowledge and skills to conform to the new role in the CBA and many are faced with overcrowded classes (1;70) that make the implementation of the new 2018 curriculum ineffective.

Again, pupils do not have books and learning tools and this is in fact affecting the pupil's construction of individual and collective competences in numeracy and literacy. Pupils are still without practical skills; hence they still cannot boast to solve problems around them and they cannot be employed. Since they cannot be employed or create their employment themselves, they become a burden to their parents and society increase dependency ratio in the country. It is in this context that the new 2018 curricula for primary school teachers are developed according the competence- based approach (CBA), the main innovations of which place particular emphasis in turn on the development of competences, the capacity to resolve professional problem situations.Thus CBA daringly adheres to the socio-constructivist and interactive learning approach. This model originates from constructivism which is based mainly

on the work of Piaget on the development of intelligence in children. According to this great researcher, the construction of knowledge is possible thanks to the interaction between the child and its environment. Vygotsky (1978, 1930) added a social dimension to Piaget's constructivism asserting that learning is a social and therefore interpersonal process. According to Vygotsky (1978, 1930) a social experience allows the learner to exchange with others. For learning to take place, the learner must find himself in a zone of proximal exchange which goes beyond what the learner would be able to do alone, among other things when collaborating with another student or even when the learner is supported by teaching. This approach encourages cooperative group work, in order to gain new knowledge.

A new vision of learning emerges, namely socio-constructivism. Concerning socio-constructivism more specifically, we can say it postulates that each individual constructs their knowledge and their representations of reality on their personal experiences. For Von Glaserfeld (1985), knowledge results from a series of actions on the part of the learner which makes it possible to create a structure based on the innate reflex or which is based on experience. As for socio-constructivism, it "insists on the role of interactions between the subject and his environment in the active process which allows him to develop knowledge about the world" (Legendre, 2005 P. 1245). For Lafortune and Deaudelin (2001), "these interactions contribute to shaking conceptions, giving rise to socio-cognitive conflicts and leading to justifying interpretations" (p.206). According to Fornot (2005), the environment allows learners to interact and have questions mutual in their construction of knowledge; "Theory describes knowledge not as truths to be transmitted or discovered, but as emergent, developmental, non-objective, viable constructed explanations by human's engaged in meaning making cultural and social communities"(p.ix).

In short, socio-constructivist has three dimensions: constructivist, social and interactive. For Jomeart and Vander Borght (2003), these three dimensions must be functionally united in order to form the socio-constructivist paradigm. The constructivist dimension is based on the certainty that the knowledge is not result of positive reception, but constitutes the fruit of the activity of the subject learner. He is active in his learning since he participates in his own process of constructing learning. The social dimension focuses on social interactions, that is to say exchanges with peers and with the teachers. These interactions allow learners to develop their interpersonal skills and capacities to work in a team (Grenon Books, 1990 &Lipman, 1995). The interactive dimension concerns the exchanges between the subject and his environment through a given situation which requires the learner to use his previous knowledge.

This situation allows learner to compare their ideas with other members of their learning community, which encourages the emergence of a multitude of points of view. Learners can then become aware of their perceptions and their own beliefs (Grenon Brooks, 1990 & Lipman, 1995).

The implementation of new 2018 curriculum respects the principles and three dimensions of the social constructivist Paradigm described by Jonneart and Vander Borght (2003). This paradigm offers a new vision of teaching and modifies the relationship between teaching and learning by integrating a learning community into the learning process. This new model brings important changes which should have an impact on the pupil's construction of individual and collective competences in numeracy and literacy in public primary school in Yaounde VI sub-division.

0.3. Research questions

This study includes a general research question and three specific research questions.

0.3.1. General research question

The general research question of this study has been formulated thus:

How does the implementation of the new 2018 curriculum influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI subdivision?

0.3.2. Specific research questions

- How does teacher's capacity building influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division?
- How does instructional delivery influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division?
- How does resource availability influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division?

0.4. Objective of the study

This study presents a general objective and three specific objectives.

0.4.1. General objective

To investigate how the implementation of the new 2018 curriculum affects the construction of individual and collective competences in numeracy and literacy in public primary schools Yaounde VI sub-division.

0.4.2. Specific objectives

- To examine how teacher's capacity building affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division.
- To determine how instructional delivery affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division.
- To examine how resources availability affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division.

0.5. Originality and relevance of the study

0.5.1. Originality of the study

The originality of this study lies in its focused and quantitative approach to evaluating the implementation of the 2018 competency-based curriculum within a specific, yet critical, urban context in Cameroon. While broader studies on curriculum reform in the country exist, this research distinguishes itself in several key ways. The study focuses on a specific sub-division. By concentrating on the Yaounde VI sub-division, the study provides a detailed and contextually rich analysis that can be more insightful than a national-level overview. This localized perspective allows for a nuanced understanding of the challenges and successes of curriculum implementation in a densely populated urban area, which may differ significantly from rural or other urban settings. Then, the study emphasizes on both individual and collective competences. The study's dual focus on the construction of both individual and collective competences in literacy and numeracy is a significant contribution. Much of the discourse around competency-based approaches centers on individual student achievement. By also examining collective competences, the research acknowledges the collaborative and social aspects of learning, which are crucial for developing 21st-century skills.

Also, the use of correlation coefficients, linear regression, and ANOVA to test specific hypotheses provides a robust empirical basis for its conclusions. This quantitative approach moves beyond descriptive accounts of implementation challenges to statistically measure the influence of key variables which are teacher capacity building, institutional delivery, and resource availability on the desired educational outcomes. The high correlation coefficients and explained variances reported suggest strong relationships between these factors and student competences. The originality of this study is lying on the timeliness and relevance. The research addresses the relatively recent 2018 curriculum reform, providing timely feedback to policymakers, educators, and stakeholders on the initial phases of its implementation. This is crucial for making informed adjustments and improvements to the ongoing reform process.

In essence, the study's originality is not in its broad topic, but in its precise and evidence-based examination of the interplay between specific implementation factors and nuanced learning outcomes in a defined educational environment.

0.5.2. Relevance of the study

The relevance of the study refers to the importance and pertinence of the subject matter of the topic. It is equally the contribution of the study to the society. As such, the contribution of this study is geared towards a number of people as seen below.

To curriculum Planners / Policy makers

The findings of the proposed study will guide curriculum planners to know what is needed, to identify the most important components of the new program, eliminate what is not needed, making modifications on the program thus enhancing the implementation of the new 2018 curriculum. Quality decisions about the content and the effectiveness of the service will be made thereby providing necessary financial and human resources needed to improve on the implementation process.

Data from the research will be used by policy makers to formulate proper policies and strategies to render the implementation process more effective and functional. Thereby, innovating the curriculum to meet or to accommodate the changing needs of the Cameroonians pupils and the community as a whole.

To MINEDUB

The findings of the study will inform the Ministry of the underpinning factors obstructing the construction of individual and collective competences in numeracy and literacy by pupil

and they will implement a new way forward or may consider retraining teachers. Moreover, the ministry of basic education may assist in reviewing the curriculum.

The Ministry of Basic Education could also find the study useful as its highlights the challenges that could hinder the effective implementation of the new 2018 curriculum. Such information is important for the ministry to address the challenges as early enough to ensure success of the new curriculum.

To Pedagogic inspectors

From the results of this study, the inspectors may be able to understand that the teachers have different perceptions and face different problems with regard to the implementation of the new 2018 curriculum. The inspectors will supervise each one of them in the improvement of implementation of the new curriculum.

To Primary school teachers

The primary school teachers are at the centre of it all. The findings of this study will give them a new and better formula of presenting the new lesson. It will further inform the teachers on pupils' challenges and redirect them on how to resolve.

To pupils

This study is poised in examining the challenges pupils go through. The findings will help the stakeholders guiding the curriculum implementation process to improve on the learners' construction of individual and collective competence in numeracy and literacy.

To future researchers

This study will benefit future researchers in that it will provide up to date literature on teachers' view towards the implementation of the new 2018 curriculum. The literature will be used to support their arguments and hence improvement in knowledge. They will have enriched available information on teachers' view towards the implementation of the new 2018 curriculum.

Conclusively the study provides an understanding of theory related to the new 2018 curriculum. Practically the study exploits the experiences of primary school teachers in the

implementation of the newly introduced curriculum. Academically the study increases the knowledge with regards to the implementation of the new 2018 curriculum.

0.6. Scope of the study

In research, it is very difficult to carry out a study everywhere and at any time. As such delimiting the topic itself as well as the temporal and the geographical delimitation of a researcher appear to be indispensable. This permits the researcher to save time and be objective in his /her findings. The scope of this study is divided into geographical delimitation, scientific or thematic delimitation and temporal delimitation.

0.6.1. Geographical Scope

Geographically, the study it carried out in the Centre region precisely in Yaoundé (VI) sub-division. They are certain limitations which always required the researcher to define the area of study. As such, this study is carried out specifically in public primary schools in Yaoundé (VI) sub-division. Yaoundé (VI) sub-division is located in Mfoundi division. It has 17 districts and two markets and the main economic activities is subsistence farming. Yaoundé VI covers an area of 22.2km^2 and has a population of 268,428 inhabitants with a density of 12,091 inhabitants per km^2

. The researcher picked on this location because she encountered minimal challenges when collecting data. Singleton (1993) observes that the ideal setting for any study, is one where the researcher has interest in, easily accessible and one that allows the researcher immediate support with the respondents. This area was chosen for this study because it harbors a good number of primary schools. Cost considerations were made in line with the fact that a study of this type requires primary data and its collection requires a lot in terms of time and financial cost. The ease with which information could be achieved for the study in this area was not equally left out and closeness of the researcher to the area was amongst the determinants of the choices of the study area.

0.6.2. Thematic scope

This scope of study will focus on the impact of the implementation of the new 2018 curriculum on the construction of individual and collective competences in numeracy and literacy in Yaounde VI sub-division. This study is a part of education management in particular in the planning of education systems. It would provide findings that education managers can use to make decision at the strategic level.

0.6.3. Temporal Scope

The study was conducted from January to march 2025. Within this time, the researcher did academic work and internship before fully engaging properly on field work.

0.7. Definition of key concepts

This section consists of defining all the key words of the study. These includes;

Competence

Le Boterf (1998), a specialist in competences development in the world of management and business defined competence as the recognized capacity to achieve results by mobilizing and combining, in a given professional situation, two set of resources ; resources specific to the individual (knowledge, skill, aptitude, personal qualities, experience.....) and resources linked to the environment (relationship networks, professional networks documentary networks, databases). Romainville (1998, p.22) believes that a "competence is an integrated and functional set of knowledge, skills, attitudes and know-how to become which will allow, when faced with category of situation, to adapt to resolve problems and to carry out projects". Tardif (2006, p.22), recently considered that "a competence is a complex knowledge of action based on the effective mobilization and combination of a variety of internal and external resources within a family of situations".

As for Perrenoud (2011, p.45), competence is "the ability to mobilize a set of cognitive resources (knowledge, capacities, information …) and emotional resources to deal with a family of situations with relevance and efficiency". Conclusively, competence is the ability to mobilize and exploit internal resources such as knowledge, skills and behaviour, as well as external resources such as database, colleagues, peers, libraries, instrumented, etc, in order to effectively solve specific problems in real world situations.

Individual competence

Individual competence is the capacity of a subject to mobilize all or part of cognitive and affective resources to face a family of complex situations. This means thinking of the synergy, the orchestration of diverse cognitive and affective resources to face a set of situations presenting structural analogies (Perrenoud, 1996, pp. 15-16). Defelix and al. (2006, p.2) define individual competence as "a combination of multiple resources linked to the experience or training of the person, but also to the work station in which they find themselves which makes a person at work « capable of ..... » in specific context. However, if individuals are responsible

for the acquisition of knowledge and the development of their competence, then it can be understood as “the interaction between the individual and the situation he encounters” . To be more precise, individual competence is the capacity of an individual to combine his or her own resources and those of his or her work environment to achieve predetermined results in a work situation.

Collective Competence

Collective competence is “the ability to mobilize networks of actors around the same situations, to share issues, to assume areas of co-responsibility” (Zarifian, 1999, p.77). As for Le Boterf (2000), it is a resultant “it emerges from the cooperation and synergy existing between individual competences”. If it were necessary to synthesis a simple equation, it could be collective competence = individual competences + cooperation. Dejoux (1998) defines collective competence as “all of the individual competences of the participants of a group of plus an indefinable component specific to the group, resulting from the synergy and dynamics of it”, while Guilhon & Trepo (2000) postulate that the collective competence emerges from the interaction of individuals.

Furthermore, Botaille (2001) defined collective competence as the recognised capacity of a work collective to deal with a situation that could not be assumed by each of its members alone. Michoux (2003) considers collective competence as trait, shared or complementary knowledge and know how, or even informal modes of exchange supported by solidarities which contribute to the « repeated and recognised” capacity of a collective to coordinate to produce a common result or co-construct situations. Lastly Krohmer (2006) emphasizes that collective competence represents all the knowledge and know-how of a work collective resulting from the interaction between its members and implemented to deal with a work situation. Collective competence is therefore the set of individual competence held by a group and whose aggregation and cohesion enable it to carry out efficient task. The group has a portfolio of competences that the manager seeks to optimize or develop.

Curriculum

Simply curriculum can be defined as the set of courses, coursework and their content, offered at school or university. Hilda Taba (1967) defined a curriculum as a document containing statement of aims and objectives, a selection and organisation of content and program of evaluation. John Kerr (1968) says it is all learning which is planned and guided by the school, whether it is carried in groups or individually, inside or outside of the learning

experiences planned and directed by the school to attain its educational goals. Caswell and Campbell (1935) defines it as all experiences children have under the guidance of the teacher.

Furthermore, Albert Oliver (1977) defined curriculum as the educational program of the school divided into four basic elements: program of service, program of experiences, program of service and hidden curriculum. Braslavsky says it is an agreement among communities, educational professionals and the state on what learners should take during specific periods of their lives. However, looking at what others have said and the purpose for which curriculum is carried out it can be defined as the overall essentials learning experiences that a learner receives in any social setting to enable him or her to offer needed services geared towards social and global benefits.

New 2018 Curriculum

In this study, the word new 2018 curriculum refers to the systematically written programs developed by the Ministry of Basic Education (MINEDUB) and introduced in primary schools on September 9, 2018.

Curriculum Implementation

Wiles and Bondi (2000) define curriculum Implementation as the process of putting a designed curriculum into practice within a classroom setting. Garba (2004) viewed curriculum Implementation as the process of putting the curriculum into work for the achievement of the goals for which the curriculum is designed. Okebukota (2004) described curriculum Implementation as the translation of the objectives of the curriculum from paper to practice. In a nutshell, Ivowi (2004) sees curriculum Implementation as the translation of " theory into practice" or "proposal into action ". This curriculum Implementation entails putting into practice the officially, prescribed courses of study, syllabuses and subjects.

Literacy

Literacy is the cornerstone of education by any definition. It is a person ability to process definition. It is a person ability to process and understand information while reading and writing (Frankel et al, 2016; Keefe & Copeland, 2011). Reading and writing in turn are about encoding and decoding information between written symbols and sound (Resnik, 1983, Tyner, 1998). More specifically, literacy is the ability to understand the relationship between sounds and written words such that one may read, say and understand them (UNESCO, 2004; Vlieghe,

2015). Generally, literacy is defined as reading and writing proficiency or the capacity to utilise language for reading, writing, speaking and listening.

Numeracy

Numeracy is the ability to process, communicate and interpret numerical information in a variety of context (Lokan et al, 2000). As for Rothman et al (2018), it is the ability to understand and use numbers in daily life. The Oxford English Dictionary (OED, 2011) defines numeracy as the quality or state of being numerate, ability with or knowledge of numbers. Numeracy is therefore the knowledge, skills, behaviours and dispositions that learners need in order to use mathematics in a wide range of situations.

0.8. Organisation of the study

The work is organised into five chapters. Chapter one deals with the construction of individual and collective competences in literacy and numeracy in public primary schools while chapter two focuses on the challenges of the implementation of new 2018 curriculum in primary schools in Cameroon. Chapter three does concern the methodical aspect of the study, which outlines procedures and strategies, data collection instrument and procedure, and data analysis technique that have been applied to carry out the study. The data collected in this study is analysed and interpreted in chapter four. Chapter five provides discussion on the findings of the study drawing, conclusions and suggestions that are based on the findings.

CHAPTER ONE: CONSTRUCTION OF INDIVIDUAL AND COLLECTIVE COMPETENCES IN LITERACY AND NUMERACY FOR PRIMARY SCHOOL PUPILS

1.0. Introduction

The construction of numeracy and literacy skills in primary school students is a main challenge in contemporary education. These skills, far from being simple calculation or reading techniques, are the foundation of cognitive development, personal fulfillment, and academic success (OECD, 2018). Numeracy refers to the mastery of basic mathematical concepts such as numbers, operations (addition, subtraction), measurements (length), and geometry for understanding real-world problems. It encompasses all mathematical competencies, including the ability to understand and use numbers, solve problems, and navigate situations involving numerical data. On the other hand, literacy refers to mastery of written and oral language, involves reading with comprehension, writing effectively, and effective communication. They enable children to understand the world around them, communicate effectively, and develop critical thinking. The skills gained in numeracy and literacy extend beyond academic success; they influence children's daily lives, autonomy, and civic engagement. Competences in both numeracy and literacy can be acquired in individual and in group. In that way, individual Competencies are specific abilities each student possesses in numeracy or literacy while collective competencies involve collaboration among students to achieve common goals by sharing their individual skills.

This chapter emphasizes the fundamental importance of numeracy and literacy skills for academic success, personal growth, and social integration. It highlights that these skills develop through complex interactions between individual, pedagogical, and contextual factors (Vygotsky, 1978). The objective is to explore deeply how these competencies are constructed among primary school students by focusing on both individual and collective dimensions as well as pedagogical strategies and assessment approaches that enhance their development. From innovative and inclusive methods, this seeks to better prepare teachers to foster learning for each student. So then, we aspire to create an enriching educational environment where everyone can develop their personal skills while learning to collaborate with peers.

1.1.Context and challenges of numeracy and literacy in primary schools in Cameroon

1.1.1. Definition of Numeracy and Literacy

Numeracy is often perceived as purely arithmetic competence, but it goes far beyond simple calculations. It includes the ability to analyze data, interpret graphs, and apply mathematical concepts in real-life scenarios. This allows students to tackle complex problems with confidence, which is essential in an increasingly science- and technology-focused society.

Conversely, literacy is vital not only for understanding texts but also for expressing oneself clearly and effectively. It relates to critical thinking and information interpretation, which are essential in a world saturated with information. Finally, numeracy and literacy complement each other, establishing a solid foundation for future learning. These skills facilitate comprehension of interconnected subjects, encourage critical thinking, and stimulate intellectual curiosity, creating a virtuous cycle of continuous learning. Early development of these capabilities is therefore essential.

1.1.2. Importance of Numeracy and Literacy Skills

Within the school context, skills in numeracy and literacy play a decisive role not only in academic performance but also in preparing students to navigate the world of tomorrow. Mastery of mathematics allows students to solve everyday problems such as budget management or understanding signage, thereby enhancing their autonomy. Concurrently, literacy is essential for interpreting information, whether it be school instructions, articles, or even digital content. In the long term, strong skills in numeracy and literacy can help reduce social inequalities and promote inclusion. Students who excel in these areas are more likely to pursue higher education and access better job opportunities. Furthermore, these skills are necessary for becoming engaged citizens capable of making informed decisions in the face of societal issues. Therefore, investing in the teaching of numeracy and literacy from the primary level is a crucial priority to ensure a fair and prosperous future for all children.

1.1.3. Current Situation in Primary Schools

Numeracy and literacy are foundational pillars of basic education, critical to cognitive, social, and economic development (UNESCO, 2017). The current state of skills in numeracy and literacy in primary schools highlights significant disparities among students. Studies show that many students struggle significantly in these essential areas, often due to socioeconomic factors, a lack of educational resources, or inadequate teacher training. The recent crisis surrounding the COVID-19 pandemic has exacerbated these challenges, revealing gaps in access to digital education and adequate support systems.

In Cameroon, a country grappling with structural and socioeconomic challenges in its education system, fostering these competencies among primary school students is a pressing priority. According to the PASEC (2019), only 43% of Cameroonian primary students achieve sufficient proficiency in reading, and 35% meet basic numeracy standards by the end of primary school. This text examines the mechanisms for developing individual and collective numeracy

and literacy skills in Cameroon, addressing sociocultural, pedagogical, and systemic factors. The acquisition of numeracy and literacy skills involves both individual and collaborative processes. Vygotsky's (1978) sociocultural theory emphasizes the role of social interaction in learning, particularly through the *zone of proximal development* (ZPD), where peers or teachers scaffold understanding. Bandura's (1997) concept of *self-efficacy* further highlights the importance of learners' confidence in their ability to succeed. In multilingual contexts like Cameroon, Cummins (2000) argues that literacy in a child's mother tongue strengthens cognitive skills and facilitates transfer to official languages (French and English). These theories underpin strategies for building competencies in diverse educational settings.

Cameroon's education system operates in a complex linguistic landscape, with French and English as official languages alongside approximately 270 local languages (Tadadjeu, 2020). Postcolonial pedagogical frameworks dominate, often neglecting culturally relevant teaching methods. Systemic challenges include overcrowded classrooms (student-teacher ratios of 60:1 in rural areas), insufficient textbooks (30% of schools lack adequate materials), and uneven teacher training (Ministry of Basic Education, 2021; UNICEF, 2020). These barriers hinder personalized learning and effective group dynamics, which are vital for skill development.

Early and targeted interventions are now important to address these challenges. Teachers are often on the frontline in observing the specific needs of their students, and it is imperative that they receive adequate training to meet these needs. Additionally, special care must be taken to balance individual and collective teaching, fostering a collaborative learning experience that respects each pupil's pace while allowing for peer interaction.

Understanding the current situation constitutes the first step toward developing effective solutions aimed at strengthening skills in numeracy and literacy, ensuring a better future for all students.

1.1.4. Pedagogical approaches to develop Numeracy and Literacy

1.1.4.1.Innovative Teaching Methods

Modern teaching methods aim to engage students while making learning more meaningful. Among these methods, project-based learning stands out by encouraging students to explore complex themes through hands-on and collaborative activities. For instance, a project centered on creating a fictional store can allow students to apply numeracy concepts to manage prices, purchases, and sales while developing their literacy skills through writing advertisements or

presenting their projects to the class. Moreover, collaborative learning—where students work in teams to solve problems—fosters not only cognitive but also social development. This type of learning creates a conducive environment for idea exchange, where each member can contribute their unique input, thus enhancing self-confidence and mutual respect. Finally, integrating digital technologies into the teaching of numeracy and literacy offers interactive tools that make learning dynamic and adaptable. The use of educational apps and online platforms enables a diversification of approaches while catering to the varied learning styles of students.

1.1.4.2.Practical Activities and Resources

To support the development of numeracy and literacy, it is crucial to integrate practical activities that make learning engaging and relevant. In numeracy, educational games like math treasure hunts or market simulations allow students to practice their skills while having fun. For example, using everyday items to teach mathematical concepts—such as counting with marbles or measuring with cooking ingredients—provides real-world context to learning. Regarding literacy, organizing reading and writing workshops can foster an environment where students discover the joy of reading and writing. Creating reading clubs or writing contests stimulates interest and engagement among students. Utilizing multimedia resources, such as audiobooks or explanatory videos, enriches the learning experience and captures students' attention in diverse ways. These methods are not limited to academic content; they invite students to express their emotions and share their experiences, making learning more personal and significant.

1.1.5. Differentiated Instruction

Differentiated instruction is a crucial approach to ensure that all students benefit from teaching tailored to their specific needs in numeracy and literacy. By taking into account different levels, interests, and learning styles, educators can adjust content, learning processes, and evaluation products. This may include heterogeneous working groups where advanced students support those who face more challenges, thereby promoting a culture of collaboration and shared responsibility. In addition, offering multiple activity choices allows students to focus on what interests them most. For instance, a single mathematical concept can be explored through a game, an artistic project, or group research, enabling each student to work on their strengths while developing new skills. Furthermore, the use of technological tools such as differentiated apps can enhance the learning experience, as they allow students to progress at

their own pace. This personalized approach helps reduce anxiety related to learning and promotes a sense of achievement.

1.1.6. Assessment of numeracy and literacy skills

1.1.6.1.Assessment tools and methods

Assessing numeracy and literacy skills is essential for measuring student progress, adapting teaching, and identifying areas requiring additional support. Formative assessments, conducted regularly throughout the school year, provide valuable insights into students' understanding. These assessments can take various forms: informal quizzes, group discussions, or self-assessments. They help collect real-time data on students' achievements, equipping teachers with the necessary information to adjust teaching accordingly.

On the other hand, summative assessments, often administered at the end of a unit or semester, serve to determine each student's overall mastery of skills. It is imperative that these assessments are adapted: practical validations, projects, and portfolios can complement traditional written tests. By integrating a diversity of assessment methods, teachers can obtain a holistic overview of students' skills, thereby reducing biases related to any single type of test.

1.1.6.2.Tracking Student Progress

Tracking student progress in numeracy and literacy relies on constructive feedback and active engagement between educators and students. Regular feedback, whether verbal or written, plays a decisive role in the evolution of skills. By providing clear and positive comments, teachers encourage students to reflect on their performances and identify next learning steps. Meanwhile, parental involvement in this process is also crucial. Informing families about their children's progress and the challenges faced strengthens the family-school partnership and increases the chances of student success.

Furthermore, encouraging students to maintain a learning journal can prove beneficial. This notebook not only allows for tracking achievements but also facilitates reflection on encountered difficulties and goal setting. Thus, students become active participants in their learning journey, developing their autonomy and intrinsic motivation. In summary, a well-structured and inclusive tracking system for student progress in numeracy and literacy creates a supportive environment for improved academic and personal success.

1.2.Construction of competences in numeracy and literacy

1.2.1. The Concept of competence

The etymology of competence (French), competency (English) and *competenza* (Italian) is derives from the Latin word "*Competentia*" which means "meeting together, in agreement and symmetry". Competence has a multifaceted history, which is evident today as many fields and professions are concerned in its interpretation, understanding and application. However, the introduction of competence. In psychology is credited to white, (1959). According to white competence is effective communication between the individual and their environment. He described competence as the personality traits that are required for excellent performance, productivity, and motivation. Later, in 1970, Craig C. Lundberg defined the concept in "Planning the Executive Development program". The term gained traction in 1973 when David McClelland wrote a seminar paper entitled "Testing for competence rather than for intelligence McClelland (1193), viewing competence as intelligence, established the mismatch between schooling and labour. He devised tests to assess competence, viewing this as defining attribute of exceptional performance. Even though McClelland concepts were hotly debated, assessments of cognitive intelligence gradually gave way to tests of competence as a predictor of work performance. Since then, this notion has been popularized by Richard Boyatzis, (1982) and many others including TF Gilbert (1978), who used the concept in performance improvement. It uses vary widely, which has led to considerable misunderstanding. studies on competence indicate that competence covers a very complicated and extensive field, with different scientists having different definitions of competence. In 1982, Zemek conducted a study on the definition of competence. He interviewed several specialists in the field of training to evaluate what creates competence. After the interviews, he concluded. There is no clear and unique agreement about what makes competence".

Competence has multiple different meanings as evidenced by these few definitions proposed since the beginning of the 1990s by authors from the Quebec Francophonie and European.

Table 1: conceptual approaches of competence

Author	Definition
Allal, 1999, p.81	A competence is conceived as an integrated and functional network made up of cognitive, affective, social, sensorimotor components, capable of being mobilized into finalized actions faced with a family of situations
Le Boterf. 1999, p.38	A competent person is a person who knows how to act with relevance in a particular context , by choosing and mobilizing a double set of resources : Personal resources (knowledge , Know- how , qualities , culture , emotional resources etc.) and network resources (banks data networks, documentary network , expertise networks, etc) . knowing how to act with relevance requires being able to carry out a set of activities according to certain desirable criteria.
Perrenoud, in Brossard, 1999, p.16	A competence is a capacity for effective action in the face of a family of situations, which one manages to master because one has both the necessary knowledge and the capacity to mobilize it wisely, in a timely manner , to identify and solve real problems
Lasnier, 2000, p.481	A competence is a complex knowing how to act which follows the integration , mobilization and arrangement of a set of capacities and skills (which can be cognitive, affective , psychomotor and social) and knowledge (declarative knowledge)used effectively , in situations having a common character
Roegiers, in Scallon, 2024, p.105	A competence is the possibility , for an individual, of mobilizing in an internalized manner an integrated set of resources with a view to resolving a family of problem situations
Beckers , 2002, Cited by Crahay, 2006, p.57	A Competence is the capacity of subject to mobilize , in an integrated manner, internal (knowledge , know-how and attitudes ,and external resources to effectively cope with a family of tasks that are complex for them

Jonnaert, Masciokra, Boufrahi, & Barrette, 2005, p.6	A competence is the implementation by a person, in a given situation and in a determined context, of a diverse, but coordinated , set of resources. Thiis implementation is based on the choice, mobilization and organization of these resources and on the relevant actions that they allow for successful treatment of this situation.
Tardif,2006, p.22	Competence is the complex knowledge on the effective mobilization and combination of a variety of the internal and external resources within a family of situations
Develey, 2015, pp.51-52	The competent person gives himself the « power to act » , because he has the knowledge and experience of situations in which it is appropriate to act , and moreover he shows himself capable of judging the relevance of of his action. The competence thus corresponds to what we will call knowing how to act thoughtfully.

Source: researcher, 2025.

The misperception: competence and competency

There have been many studies on competency development and assessment that focus on different fields and professions in various countries (e.g.; Chung & Wu, 2011; Kang et al, 2015; Omran & Suluman, 2017). However, the term "competency" is a 'fuzzy' concept that can generate many confusions (Van der Klink & Boon, 2003; le Deist & Wintertan, 2005). This is especially the case when the term "competence" (instead of 'competency') was used in some of the studies, but lack of clear explanation or elaboration about the rationale behind. Consequently, it gives a general sense that these two terms can be used inter changeably and that there is no distribution between them (Moore et al, 2002; Vazirani, 2010).

A review of literature suggested that, "competency" and 'competence' are two distinct "approaches" to studies on, HRM field. The first one is person-oriented behavioural approach. This approach commonly uses the term 'competencies' to refer to the behaviours or personal attributes supporting an area of work and is particularly influential in the united states. The second one is task – Oriented functional approach. This approach, on the other hand , uses the term 'competence' more frequently for describing an area of work tasks or job outputs and is dominant on the United Kingdom (Moore et al, 2002; Vazirani, 2010; Woodruffe, 1991). Boak (1991) argued that both 'competency' and 'competence' complement each other. Burgoyne

(1988) described being competent as achieving the job demands or roles while 'having competencies' as demonstrating the essential behaviors for effective work performance.

Table 2 : The comparison between 'competency' and 'competence'

Competence	**Competency**
Focus on the results	Focus on a person's behavior
Describe the features of the area of work tasks or job outputs	Describe the attributes of the person
Constitute of the various skills and knowledge needed for performing the job	Constitute of the underlying attributes of a person for superior work performance
Not transferable as each skill and knowledge is more specific to perform job	Transferable from one person to another
Assessed by performance on the job	Assessed in terms of behaviors and attitude
Task-oriented	People-oriented

Source: the researcher, 2025.

As shown in the table above, therefore a few lines of distinction between 'competency' and 'competence'. However, people tend to use these terms interchangeably to fit their own research context and convenience (Vazirani, 2010). In 1982, Zemke conducted a study on the definition of competence. He interviews several specialists in the field of training to evaluate carefully what makes competence. After the interviews he conducted, there is no clear and unique agreement about what makes competency and what is not, and that the term 'competency', "competence", and other related ones "are Humpy Dumpty words meaning only what the definer wants them to mean. From these above, it is possible to identify constants, by using certain recurring terms:

1.2.1.1.Knowing how to act

It is therefore in action that a competence is defined and not only in abstract knowledge some like Le Boterf (1999), speak of "knowing how to mobilize" since this action takes the form of mobilizing a set of resources in an integrated, appropriate and intentional manner in a given situation. The notion of mobilization implies a systemic vision of the subject's action (Lasnier, 2000). It is not simple juxtaposition a or addition of isolated actions placed end to end. Le Bortef (1999) thus describes the competence as "a combinatorial knowledge because it is a sequence of actions where multiple know-how are combined" (p. 344). Lasnier (2000) defines competence as a sort of "mega-procedural knowledge", because it integrates many elements allowing complex tasks to be carried out.

Contextualized know-how

The competence is “situated” or “contextualized” .It unfolds in a given context. The authors use various other terms to refer to this concept of context: situation, situation-problem, problem, task-problem, professional task etc. An important characteristic of this context is that it is complex, competence & manifests itself in contexts of certain complexity, unlike know-how that is applied in Isolation” (MEG, 2001.P.5).The competent person will therefore implement a judicious and appropriate combination of tasks which is specific to each situation. It should be noted that the competent person cannot only act adequately in this specific situation, but also in an entire “family of situations” Sharing a common character with it (Lasnier,2000; Perrenoud, 1998) (Lasnier,2000; Perrenoud,1998; (Scallon, 2004; Tardif, 2006), Patré (1999)emphasizes, for this purpose, that the more a person has succeeded in finding invariance at high level of abstraction between situations, the more their capacity adaptation to variations in situations will increase” (P.6) Thus, a competent person not only recognizes the similarity between various situations, but also knows how to adapt to the nuances of each situation belonging to a family of situations. It can also develop original solutions when unusual events arise in these situations. In other words, the combination of resources will be appropriate for each situation.

A know-how that requires the mobilization of resources

Most authors distinguish two types of resources that the competent person can mobilize in a given situation in ternal and external resources, namely internal and external resources. Internal resources include the person’s total knowledge, experiences, skills, interests, attitudes etc. These are personal resources (Le Bortef, 1994). They also include what some call “les savoir” (declarative for conceptual knowledge), les savoir faire(procedural knowledge), “Les savoirs stratégiques” (conditional knowledge) .This “savoirs” or “Connaissances” does not only relate to the cognitive domain, but also to the affective domain, the social domain and the motor domain. Thus, a competence is based on the use of those different types of “savoirs”, but it is not these “savoirs” which is rather seen as being resources for the competent individual. As Perrenoud (1978) writes, “possessing knowledge or capacities does not mean being competent. You may know accounting management techniques or rules and not know how to apply them at the appropriate time. You can know commercial law and draft contracts poorly” (P.16). As for external resources, they can be physical (documents, tools, machines, places etc), human (peers, trainers, experts, etc.) or temporal. Le Boterf (1974) describes them as a “resource networks”; data banks, documentary networks, expertise networks, etc

A Know-how that manifests itself in a performance

Performance is the manifestation of competence in a given situation and not the competence itself. Different competent people may perform differently but equally effectively in a given situation. There are therefore are several ways to be competent in the same situation (Le Borter, 1999). However, successful action is successful, effective and efficient action. For the person, it is a question of acting with relevance (Le Borter, 1979), wisely (Perrenoud, in Brossard, 1999), according to the need and the specificity of the task (Lasnier, 2000), which can mean, in some cases, on time and at the right time. As Allai (1999) points out, it can nevertheless happen that, in certain circumstances, a competent person is not able a to demonstrate the desired performance for example, a teacher who is highly competent in educational facilitation can sometimes "bottom" the implementation of a teaching learning situation, due to lack of having had time to prepare it or because of emotional problems or communication problems, health. He remains no less competent.

1.2.1.2.Characteristics of a competence

Competence is defined as "knowledge to act based on the effective mobilization and use of a set of resources". This is generic definition is similar to that of a system, the characteristics of which it embraces: complexity, globality, openness (or interactivity) and scalability (Legendre, 2000). To use the definition proposed by De Rosnay (1975, P.91), a "system is a set of dynamically interacting elements organized according to a goal" Just like the latter, competence must be considered in its totality, it's globality and its own dynamics. The main characteristic of a competence is shown on the table below.

Table 3: characteristics of competence

Competence is complex	It does not result from the sum, but from the dynamic organization of its components. A competence therefore

	requires the mobilization and orchestration of various elements or components on which it is based
Competence is global and integrative	It calls upon varied resources which are not necessarily the same from one individual to another. It is therefore the whole that gives meaning to the components and not the other round. A competence therefore presupposes a relatively stable organization which is however, not incompatible with the variability of its possible manifestations
Competence is interactive	On the one hand, it is closely linked to the situations over which it allows control. On the other hand, it develops through its use and is similar in this respect to a tool whose possible uses we gradually discover. Competence is therefore inseparable from the contexts in which it can be mobilized or of which it can be mobilized or of which it allows mastery and these contexts are always socially situated.
Competence is progressive	It necessarily relies on existing resources which are called upon to develop and interact with each other competence is therefore always likely to evolve due to its continuous interactions with diverse contexts and situations and this evolution cannot take place without a minimum of restructuring or reorganization.

Source: Legendre, 2000

The notion of competence can also be revisited within the framework of various situated perspectives; situated action (Suchman, 1987), situated cognition (Lave, 1988), distributed cognition (Perkins, 1995), distributed intelligence (Pea, 1993), collective intelligence (Levy, 1997) and enaction (Varela, 1989). Each of these concepts, however, refers to particular currents of current thinking on cognition. By taking ideas from each of these approaches and coherently articulating these borrowings between them, we have allowed ourselves to revisit the concept of competence. In these lines, we propose several characteristics of competence, which, according to us, is, among other things, situated, distributed and enactive. It is also individual or collective (Leplat, 2001; Lévy, 1994).

Situated Competence

A Competence is developed and exercised modified and evaluated in situations. competence and situation are thus intertwined in a dialectical relationship a competence necessarily functions in a situation, it is situated just like the internal resources it engages and the external resources it uses.This idea is part of the perspective of situated action (Sucham, 1987): every action is conceived in its anchoring in a situation outside which it would not have the same meaning. Suchman (1987) contexts the relevance of de contextualized rational planning or of an action plan developed a priori outside of the situation, to be subsequently executed as is. The teacher, for example gives himself a particular lesson plan putting this plan into action, however, will require multiple adjustments depending on the actual progress of the louse, the "personality of the group of students, the prevailing, atmosphere, etenuating circumstances, the dynamics of interactions, in short of the situation, it characteristics and its context from this point of view therefore, a teaching competence, for example is understood above all in a teaching situation, where it is exercised, experienced, refined, perfected adapted and constantly rebuilt. Teaching competence is a becoming-in-the-classroom, a becoming-teacher- -in-class (Roth, Masciotra, Bayd, 1999) In such an orientation, a methodology for the study of competence has its object & the activity of person-acting in setting (Lave, 1788).

Approaches to situated cognition, learning and competence are based on the principles of situated action. The term situated here mans the human activity takes on its meaning within a situation and the context in which it takes place. Thus, knowledge does not exist in Its pure state in people's heads, it is rather Internal to the situation, a bit like "knowing how to juggle which is internal to the juggling situation in other words being is always being in a situation", or even being in the world' as phenomenology emphasizes. (Masciotra, in press), knowledge is internal to being in the world as a whole and not just to being. A person who is knowledgeable about something in a world is competent in that world. However, it is not necessarily so in another world. For example, the French-speaking teacher of physical geography is competent in teaching situations of this geography in French on the other hand, he is not competent to teach human geography, or even physical geography in another language (Romanian, Russian, etc.) likewise, the French comedian who is very popular in France will not necessarily be so in Quebec, the gags becoming decontextualized. With Baeriswyl and Thevenaz (2001), we admit the following characteristics of the situated approach to reframe the concept of competence:

A focus on situations: "The word situated Signals a focus on mediation situations" (Baeriswyl & Thevenaz, 2001, p. 398).

A focus on activity: The object of focus is grasped and transformed by the activity of the person. The material objects of the world tools, techniques and knowledge are products of previous human activities, available or latent in the mediation situation" (Baeriswyl & Thevenaz, 2001, P.398).

Social marking: These objects are marked by the social situations in which human activities created them.

A delimitation by people. The analysis of situations remains only partial and static if it remains in the given world-reality as given is distinguished from reality, the product or the activity of people in a situation. The learner and the education taken in broad sense-transform this data according to motivating and interpretations of the situation. In each situation, we encounter a given action environment each time

Distributed Competence

Situated cognition, insofar as it refers to the whole being-in-situation, is also distributed psychology studies the being what Perkins (1993) refers to as the person-solo, and neglects the in-situation dimension of the person taking as this point of departure Pea's (1993) work on distributed intelligence, Perkins (1993) introduces the notion of the person-plus, the plus referring to the elements of the person's immediate surroundings, which include physical, social and spatio-temporal resources while these may well be considered as external to the individual, they are nonetheless part of the person's cognition insofar as they serve as resources for action. cognition is thus distributed through all of these resources. For example, when a person takes minutes at a meeting, cognition is distributed to the notepad and the notes as well as to the person's memory. "The residue left by thinking-what is learned-lingers not just in the mind of the learner, but in the arrangement of the surround as well, and it is just as genuinely learning for all that" (Perkins, 1993, P.90). If the environment is part of cognition, the same applies to intelligence (Pea, 1993); Intelligence does not belong only to the individual; it also resides in the tools that a person uses and the experiences that he/she shares with others. Shared experience is a matter of collective competence.

Collective and individual Competences

Collective competence is the property of a group of people who are concerned by a common situation. A collective competence is not the sum of individual competences. In fact, the group can impair or even impede the development of a collective competence (Lave & Wenger, 1991)

Lévy (1994) compares the chaotic competences of spectators in a crowd to the spontaneous synergy generated by the collective competences of the players on two opposite teams in a match .Lévy (1994) illustrates crowd behaviour by referring to the behaviour of fans at a sporting event, where everyone is yelling more or less the same thing at the same time.

In such situations, it is difficult to distinguish the actions of different individuals or to perceive any coherent or memorable links between them. The individual fan becomes lost in the disorderly mass of supporters. A Crowd displays a low level of collective intelligence. This is not the case, however, when two opposing teams encounter each other in a game. Here, the field constitutes the meeting ground of the respective collective intelligences of the two teams, each of which emerges from the harmonious and strategic relations among the individual competences, of the players. On the field, as opposed to what happens in a crowd, each player's moves are distinct from those of the other players, but all their actions are co-ordinated, responsive and meaningful with respect to each other.

Evidence of collective enaction is particularly noticeable in certain large groups, such as a symphony orchestra the violinist, the pianist and clarinettist they all have individual competences as musicians. They symphony emerges in action from the collective competence of all the musicians as they co-ordinate their playing. Competence or "collective intelligence is not a communal hodge podge of individual intelligences, but rather the recognition and mutual reinforcement of unique intelligences" (Levy, 1995, p.25). The notion of the classroom as a community of practice (Lave & Wenger, 1971; Wenger, 1998) highlights the collective and shared aspects of competence: In such a community, the individual and collective competences develop through, among other things, the participation of the members in the shared practices of a social group. A community of practice is organized around what, for its members, constitutes recognized, shared and meaningful practice (Wenger, 1998). Learners' access to the practices of a community promotes the development of individual and collective competences. But whether individual or collective, all competence develops in situations.

Enacted Competence

Competence pertains to a person-in-situation. Situations are occasions for individuals to enact themselves, to be fully engaged through their action possibilities. Being competent means doing something in a field of action. A person is competent in action. A juggler is competent because he/she becomes a juggler in the very act of juggling, in which the balls constitute the person-in-situation, and together they form a complex system of structural coupling that Varela (1989)

calls “enaction”. In this structural coupling, the mind and the world are inseparable they do not oppose, so much as mutually compose each other. Competence in juggling is enactive because the juggler is fully engaged in action and in situation and invests the act of juggling with its reality. As is the case with action, cognition and intelligence competence functions in situation, and is therefore at once situation, and situated.

Competence, then, can only have meaning in action and in situation this approach is being tested by researchers ORE (Curriculum Reform Observatory-Quebec; today UNESCO chair in curriculum Development). Based on the data obtained, researchers have formulated the hypothesis that knowledge constructed in situations that are understood by students, can be adapted and re used in de-contextualised learning activities, unrelated by students, can be adapted to the requirements of the tests, in the end of primary school (Jonnaert, 2009). The above approach elaborates on the meaning of competence through which integrated network situations, the person’s actions, disciplinary knowledge, personal resources (knowledge, motives, emotions etc), out sourcing, (which offers the situation) and the efficient handling of the situation by the person intelligent integration of these elements allows developing the content of study programs and handling situations competently understood by students (table)

One such network which skilfully integrates these elements, presents a curricular logic that orients the program designers, as well as competent handling of situations in learning only by acting in obvious situations the person develops his competences, which make the situation authentic source and criterion of competence. In a comparative context, the competence is related to the situation, as is the knowledge with the physical and social context. Meanwhile, content subject conceived not as an end in itself, but situations a tool for shaping

1.2.2. Development of competence in numeracy and literacy

The construction of individual and collective competences in numeracy and literacy is a critical aspect of primary education, as these foundational skills serve as the bedrock for future academic success and lifelong learning. Literacy and numeracy are not only essential for understanding complex concepts across various subjects but also play a pivotal role in enhancing communication, problem-solving, and critical thinking abilities (Johnston, 2012; Moyles & Hargreaves, 2003).

Numeracy skills enable students to understand mathematical concepts, analyze data, and make informed decisions (Tunmer & Hoover, 2019; Buckingham et al., 2019). Similarly, literacy skills empower students to effectively communicate their thoughts through verbal and

written means (van Bergen et al., 2021; Amiti, 2020)[2]. The development of these competences is influenced by both home environments—such as parental involvement in reading or math activities—and school-based interventions like targeted fluency-building exercises (Sénéchal & LeFevre, 2014; Beverley et al., n.d.).

Collectively fostering these competences within primary schools involves creating supportive learning environments that encourage active engagement with literacy and numeracy tasks. This can be achieved through evidence-based teaching practices such as authentic reading experiences and collaborative learning strategies (Mussa & Vicent, 2016; US National Reading Panel cited in Mussa & Vicent). By focusing on both individual progressions—through personalized interventions—and collective advancements—via inclusive classroom practices—educators can ensure that all students develop robust foundational skills necessary for future academic achievements.

1.2.2.1.Construction of individual skills in numeracy and literacy

The construction of individual skills in numeracy and literacy by primary school students is a complex and multidimensional process that spans several years. These skills, which are at the heart of academic success and personal development, do not develop linearly and uniformly in all children. They are influenced by a variety of factors, ranging from innate cognitive abilities to learning experiences at school and home.

Numeracy Skills:

Numeracy, often defined as the ability to understand and use mathematics in everyday life (OECD, 2016), encompasses a wide range of skills, from simple number recognition to complex problem-solving. Numeracy skills thrive when linked to real-life contexts. Ndimako (2020) found that problem-solving tasks tied to local practices (e.g., calculating crop yields or market transactions) enhance mathematical understanding. Yet, large class sizes limit teachers' capacity to provide individualized feedback, perpetuating misconceptions (Tchombe, 2018). Digital tools, such as mobile apps for arithmetic practice, offer promise but remain underutilized due to infrastructural gaps (Karsenti & Collin, 2019).

The construction of individual numeracy skills by primary school students involves the acquisition of fundamental concepts such as:

- Number sense: Understanding the meaning of numbers, their relationships, and their different representations (digits, words, quantities).

- Arithmetic operations: Mastering the four basic operations (addition, subtraction, multiplication, division) and their applications in concrete situations.
- Problem-solving: Being able to translate a problem into mathematical terms, choose the appropriate solution strategy, and interpret the results.
- Geometry: Understanding geometric shapes, their properties, and their spatial relationships.
- Measurements: Using units of measurement to quantify magnitudes such as length, weight, time, etc.

The construction of these skills is a gradual process that builds on prior knowledge and experience. Children first learn to count, compare quantities, and then perform simple operations. As their cognitive development progresses, they acquire more complex skills, such as solving multi-step problems or understanding abstract concepts.

Literacy Skills:

Literacy is defined as the ability to read, write, and understand various texts (UNESCO, 2017). It also encompasses the ability to communicate effectively orally and in writing. Literacy acquisition in Cameroon requires pedagogical approaches tailored to linguistic diversity. Research shows that phonics-based instruction combined with culturally relevant texts improves reading outcomes. For example, Ngo Melha's (2018) study in Douala demonstrated a 22% increase in reading comprehension when local folktales in Duala or Fulfulde were integrated into lessons. However, the dominance of French and English in curricula often marginalizes mother tongues, creating cognitive dissonance for students (Cummins, 2000). Effective literacy instruction must balance official language mastery with mother tongue validation.

In primary school, the construction of individual literacy skills involves the acquisition of key skills such as:

- Decoding: Being able to recognize letters and associated sounds, and combine these elements to read words.
- Comprehension: Being able to understand the meaning of words, sentences, and texts, and to draw implicit and explicit information.
- Written expression: Being able to produce coherent texts adapted to different contexts and objectives.

- Oral expression: Being able to communicate clearly and effectively orally, using appropriate vocabulary and adapting one's speech to one's audience.

As with numeracy, the construction of these skills is a progressive process that builds on prior knowledge and experience. Children first learn to recognize letters, then to read simple words and short sentences. As they develop, they acquire more complex skills, such as understanding literary texts or producing argumentative texts.

The construction of individual competences in numeracy and literacy among primary school students begins early in childhood. These foundational skills are essential for developing self-confidence, analytical thinking, and critical thinking (Johnston, 2012; Tunmer & Hoover, 2019). In numeracy, children learn to understand and manipulate quantitative information through educational games or daily activities such as counting objects (Bar & Shaul, 2021). In literacy, they develop their ability to decode and interpret written text through family interactions like shared reading (Sénéchal & LeFevre, 2008).

1.2.2.2.Construction of collective skills in numeracy and literacy

Beyond individual skills, students must also develop collective numeracy and literacy skills. These skills, which manifest themselves in social interactions and collaborative learning, are essential for academic success and social integration.

Collective numeracy skills

Collective numeracy skills develop when students work together to solve problems, share their knowledge and strategies, and collectively build their understanding of mathematical concepts. Activities such as group work, collective projects, or mathematical debates are conducive to the development of these skills. In these situations, students are led to communicate through explanation of their ideas, reasoning, and solutions to their peers. They must cooperate and work together to achieve a common goal, dividing tasks and helping each other; Find compromises and consensual solutions when opinions diverge; and finally justify their choices and solutions using mathematical arguments.

Collective literacy skills

Collective literacy skills develop similarly, when students interact around texts, share their interpretations, and collectively build their understanding. Activities such as literary discussions, collective writing workshops, or projects to create newspapers or plays are particularly suitable. In these situations, students are led to:

- Listen: Be attentive to the ideas and interpretations of others.
- Share: Express their own ideas and interpretations clearly and respectfully.
- Collaborate: Work together to analyze texts, produce writings, or create artistic projects.
- Debate: Discuss different interpretations and defend their points of view using relevant arguments.

Collective learning strategies remain underexploited in Cameroonian classrooms. Peer learning, for instance, can bridge linguistic and skill gaps. A 2019 pilot project in Douala paired Francophone and Anglophone students in mixed-language problem-solving groups, resulting in a 15% improvement in math scores (Karsenti & Collin, 2019). Similarly, reading circles promote critical thinking and collaborative interpretation (Johnson & Johnson, 2002). Community-based initiatives, such as parent-led storytelling sessions or local library programs, further reinforce collective literacy (World Bank, 2022).

1.2.3. Factors influencing skill construction

Individual factors that influence skills construction

Several individual factors can influence the construction of literacy and numeracy skills in primary school students. The child's cognitive abilities, such as memory, attention, executive functions, etc., play an important role in their learning of numeracy and literacy. Children who have difficulties in these areas may need specific support (Gathercole et al., 2004). According to Wigfield et al., (2016), the child's motivation and attitudes towards literacy and numeracy can have a significant impact on their learning. Children who are motivated and have a positive attitude towards these subjects are more likely to progress. Some children prefer to learn by manipulating concrete objects, others by listening or reading. It is important to take these differences into account to adapt teaching to the needs of each child (Pashler et al., 2008).

Collective factors that play a role in skills construction

Collective factors, such as social interactions and collaborative learning, also play an important role in the construction of numeracy and literacy skills:

- Social interactions: Interactions between students, whether through collaboration, tutoring, or simple exchanges, can promote the development of their numeracy and literacy skills. Children learn by interacting with their peers, sharing their ideas and strategies, and comparing their points of view (Johnson & Johnson, 1999).

- Collaborative learning: Collaborative learning is a pedagogical approach that emphasizes group work and cooperation among students. It has been shown that collaborative learning can improve numeracy and literacy skills, as well as students' social and emotional skills (Slavin, 1995). It enhances numeracy/literacy through shared knowledge exchange and idea confrontation fostering communication and teamwork skills essential for collective problem-solving. Forms include group projects and peer tutoring which require a supportive environment with clear roles and evaluation processes.

Benefits include enhanced social/emotional intelligence while challenges often stem from managing diverse perspectives effectively within groups.

In the others hands, there are some factors influencing considerably the construction of the individual and collective competence in primary school. Among these factors, we have the educational context. Quality teaching, resources, classroom climate, teacher-student relationships significantly impact skill development. Improvements can be made via teacher training innovative resource development inclusive learning environments creation. We also have family/social context. Parental education support access cultural resources language practices at home influence outcomes significantly suggesting partnerships between school families could enhance support structures available children's learning journeys.

Differences in student aptitudes interests' styles necessitate personalized instruction adapting teaching methods materials according needs ensuring equity inclusivity across diverse learner profiles.

1.2.4. Activities developing individual and collective competence

1.2.4.1.Effective pedagogical practices

Many pedagogical practices can be effective in developing numeracy and literacy skills in primary school students:

Explicit instruction: Explicit and structured instruction is essential to help students acquire the basics of numeracy and literacy. According to Archer and Hughes (2011), this involves clearly defining learning objectives, presenting concepts clearly and progressively, providing examples and demonstrations, and giving students opportunities to practice and exercise.

Use of concrete materials: The use of concrete materials, such as cubes, tokens, cards, etc., can help students visualize mathematical concepts and make learning more concrete and interactive.

Playful activities: Playful activities, such as board games, card games, role-playing, etc., can make learning more fun and motivating for students.

Pedagogical differentiation: It is important to differentiate instruction to take into account the needs and abilities of each student. This may involve offering different activities, varying teaching materials, or implementing individualized support for students with difficulties.

1.2.4.2.Promoting collaboration among students

Encouraging teamwork

Promoting teamwork among students is essential for developing social skills while reinforcing numeracy and literacy skills. By working together, students share ideas, challenge arguments, and learn to respect others' opinions. For instance, in group projects focusing on solving mathematical problems, each member can take on a different role, encouraging discussion and cooperation. Such interactions also foster the development of collective creativity and the ability to approach challenges from various angles.

Group discussions in literacy, where students analyze and debate texts, further develop their oral and critical skills. By listening, synthesizing, and reformulating ideas shared by peers, students enhance their understanding and improve their ability to express themselves clearly. To strengthen this collaborative learning, it is important to establish clear rules and a trusting climate where every student feels safe to share their thoughts. Thus, teamwork becomes a valuable pedagogical tool, allowing for a deeper immersion in the concepts of numeracy and literacy.

Developing an inclusive learning environment

An inclusive learning environment is key to the success of all students. This involves creating a culture where everyone feels valued, respected, and free to actively participate. By establishing norms of respect and kindness, teachers encourage students to engage and learn from one another, fostering a spirit of assistance. Implementing pair work or heterogeneous workgroups brings together students with varying skills, creating a dynamic of mutual learning in which each contributes their unique perspective.

It is also essential to recognize and celebrate the diversity of students' skills and backgrounds. This can be achieved by implementing differentiated pedagogical practices tailored to each student's specific needs. For example, providing various avenues for projects (whether through art, digital mediums, or oral presentations) allows each student to shine based

on their personal strengths. To ensure that this inclusive environment has a lasting effect, teachers should also receive ongoing training on best practices in inclusion, enabling them to systematically adapt to the diverse needs of their students.

1.2.4.3.Teachers/Educators and construction of competence

Ongoing teacher training

Ongoing teacher training is crucial to maintain the effectiveness of teaching in numeracy and literacy. In a rapidly evolving world, pedagogical practices must also adapt to social, technological, and cognitive changes. Teachers must be regularly trained to integrate new teaching methods, use recent technological tools, and effectively address the diverse learning needs of their students. Workshops, seminars, and conferences on specific topics enable teachers to share experiences, discover new resources, and establish professional connections.

In other hand, access to mentorship or tutoring programs that connect experienced teachers with newcomers can prove extremely beneficial. These supportive relationships promote the sharing of good practices and continuous professional development. Encouragement of experimentation and reflection on one's own practice also engages teachers to diversify their approaches. By investing in the professional development of teachers, schools can significantly improve the quality of education delivered, and consequently, students' learning outcomes.

Collaboration with parents and the community

Collaboration between teachers, parents, and the community is a powerful lever to strengthen students' skills in numeracy and literacy. Involving parents in their children's education—whether through meetings, workshops, or community activities—creates a coherent educational support network. Parents play a key role in encouraging reading at home, helping with math homework, and providing additional resources.

Moreover, partnerships established with local organizations, such as libraries, community centers, and businesses, can provide useful resources and experts that enrich learning. Community events, such as science fairs or public readings, spark student interest and engage the wider community. This also helps to create an authentic learning environment where skills acquired at school are applied in daily life.

By establishing open and transparent communication channels, teachers can work hand-in-hand with parents and community members to ensure the success of each student, thus creating a dynamic and inclusive learning ecosystem.

1.3.Challenges to the construction of Individual and Collective Numeracy and Literacy Skills in Primary School

The construction of numeracy and literacy skills in primary school in Cameroon faces many issues and challenges.

1.3.1. Issues related to the construction to individual skills:

As issues, the development of individual competence or skill is facing:

- Quality of teaching: The lack of initial and continuing teacher training, as well as the use of inappropriate pedagogical methods, can hinder the development of students' individual skills.
- Resources: The lack of resources such as textbooks, teaching materials, and adequate infrastructure in many schools can limit students' learning opportunities.
- Learning difficulties: Learning disabilities, such as dyslexia or dyscalculia, can make the acquisition of numeracy and literacy skills more difficult for some students.
- Motivation: The lack of motivation of students, often related to an unstimulating family environment or academic difficulties, can hinder their progress.

1.3.2. Issues related to collective skills:

As issues, the development of individual competence or skill is facing

- Pedagogical practices: Traditional pedagogical practices, centered on lecturing, do not always promote the development of students' collective skills.
- Class management: Managing overcrowded classes can make it difficult to implement effective collaborative activities.
- Assessment: The assessment of collective skills is often neglected, which does not allow for measuring students' progress in this area.

1.3.3. Challenges

To address these issues, it is necessary to implement comprehensive and integrated strategies that take into account the various factors that influence the construction of numeracy and literacy skills. These strategies could include the improving teacher training, the developing

pedagogical resources, and the support for students with difficulties, the promoting student motivation, the developing and assessing collective skills

Strengthen initial and continuing teacher training, with a focus on active and participatory pedagogical methods, as well as taking into account students' learning difficulties. Developing pedagogical resources: Develop quality textbooks and teaching materials, adapted to the Cameroonian context and the needs of students.

The support for students with difficulties is one of the challenges faced by teachers in construction of collective skills. This pass through the implementation of individualized support mechanisms for students who experience learning difficulties, working closely with families and health professionals.

The teacher must create a stimulating and motivating school environment, valuing students' progress, encouraging their participation, and developing their interest in numeracy and literacy. He also needs to use pedagogical practices that encourage collaboration, communication, and debate among students, by implementing varied and age-appropriate activities. This helps to develop specific assessment tools to measure students' progress in collective skills, using formative and summative assessment methods.

In sum, the construction of individual and collective numeracy and literacy skills in primary school students in Cameroon is a complex challenge that requires a concerted effort from all stakeholders in the education system. By implementing comprehensive and integrated strategies, it is possible to improve the quality of education and enable all students to develop these essential skills for their academic success and their future.

1.4.Theoretical approaches for the construction of competence

This study adopted the interactive socio-constructivism theory. Here we shall discuss the conception of socio-constructivism, the socio-constructivist and interactive model of knowledge construction, the articulation of the three dimensions with each other, the concept of competence from a socio-constructivist perspective and the application of the socio-constructivist and interactive (SCI) model of knowledge construction.

1.4.1. Conception of socio-constructivism

Constructivism is a theory in education that recognises learners construct new understanding and knowledge, by integrating with what they already know. The origin is also linked to Jean Piaget's theory of cognitive development. Constructivism can indeed take on very different

connotations ranging from radical constructivism (Von Glaserspfeld, 1985) to the social constructivism of Gergen (1985) through the ecological constructivism of Steier (1995) and many others.

From a knowledge construction perspective (about "codified knowledge" described in study programs) socio-constructivism originated from constructivism. In this sense the words of Piaget (1963) particularly attract our attention. They define the constructivist dimension of knowledge development through the double process of adaptation: assimilation and accommodation:assimilation refers to the process of fitting new information into existing mental frameworks (schemas) while accommodation involves changing or adjusting those schemas to incorporate new experiences that don't fit within the existing understanding; essentially, assimilation is integrating new information into existing knowledge, while accommodation is modifying existing knowledge to fit new information.

Piaget's theory describes intelligence as a biological adaptation mechanism where individuals actively construct knowledge through interaction with the environment, essentially « adapting » to their surroundings by building mental schemas through processes of assimilation and accommodation, and progressing through distinct stages of cognitive development throughout child development; he considered intelligence not just as fixed trait, but as a dynamic process of learning and adapting to new situations. For Piaget, the subject only constructs a representation of the external world through his own actions and operations, both on the physical world and his own prior knowledge about this external world.

Initiated by the work of Vygotsky in 1960s, socio-constructivism takes up the main ideas of Piaget's constructivism, adding the social dimension of learning. This approach places greater emphasis on the importance of social and cultural environment in learning. If the construction of knowledge is personal, it always takes place in a social framework. Indeed, the learner is not alone: he is surrounded by other people who have impact on him and the development of his knowledge. Therefore, Vygotsky considers learning as the acquisition of knowledge through exchanges between the teacher and learners, or between the learners, or through any external person (e. g. friends, family).This is how he will theorize the Zone of Proximal Development (ZPD) which is defined as the gap between, on the one hand, the capacity to solve problem alone and, on the other hand, the possibility of achieving this with the help of others (teachers, peers, learners)(Martin &Savary,2008).

The Piagetian principles of adaptation and the Vygotsky social and cultural theory thus lay foundations of an interesting constructivism model: the constructivist dimension of the process of appropriation and construction of knowledge by a subject, interactive dimension of this same process, since the subject's knowledge is put into interaction with the object to be learned and the socio dimension since we are interested in learning in a school context about codified knowledge by a given community. These three dimensions constitute the foundations of our model of knowledge construction known as the socio-constructivist and interactive (SCI) model.

1.4.2. The socio-constructivist and interactive model of knowledge construction

Jonnaert and Vander Borght (2003) through their research developed a socio-constructivist and interactive perspective (the SCI model) in a school context. The two authors have proposed a grid that can be used to analyse different definitions of the concept of learning. This epistemological paradigm is made up of the following three dimensions

The constructivist basis of the knowledge construction process

Constructivism postulate that knowledge is not the result of a passive reception of external objects, but rather constitutes the fruit of the activity of the subject. However, this activity does not relate to just any object. It essentially manipulates the ideas, knowledge and conceptions that the subject already has about the object to be learned, whether or not it is codified knowledge. The subject constructs his knowledge through reflective activity on what he already knows, adapting his own knowledge to the requirements of the situation he is confronted with and to the characteristics that he himself encodes about the object to be learned. This activity is reflective in the mathematical sense of the term, since its forms a loop around the knowledge of the subject. This activity is also dialectical, because it brings into interaction the knowledge of the subject (the old) p with the object to be learned (the new), the one adapting to the other and vice versa. This reflective and dialectical activity is, however only possible if the subject's knowledge is put into interaction with the physical environment; otherwise, to what would his knowledge adapt?. Finally, this reflective loop always allows the subject to return to the initial state by a sort of a look back at his approach.

The activity of the subject, this constructivist dimension, relates not to concrete objects, but rather to the subjects knowledge linked to physical and social realities in which the object to be learned is encountered (it can be act with codified knowledge) beyond this knowledge, these activities also relate to the operations that the subject carries out, but are never reduced to these

operations. Its activity is also interested in the results of an action than gestures made concretely on material objects.It is by analysing the links that are woven between his action, the results of his action and the characteristics of the representations or objects on which he acted that the subject can establish causal links. The activity of the subject therefore concerns the operations that the subject has carried out, their results and the connection between the two (operations and results), it is therefore not at all reduced to the concrete activities of manipulations carried out by the students, The latter are certainly useful, but Piaget repeated that they are only crutches for the real activity, the one that we just described and which concerns operations and not concrete material. But again, for this activity to exist they need a basic material.l Codified knowledge can be of these basic materials. The constructivist dimension therefore evokes the reflective and dialectical activity of the subject on his own knowledge and on the operations he carries out on a given material or about it.

Finally, if constructivism supposes a reflective loop on the subjects knowledge and operations. It is also supposes a dialectic between the subjects prior knowledge to be constructed. It is through this dual approach, dialectical and reflective, that constructivism can be relevant for school learning whose traditional object is not excluded from the process that we have just described. On the contrary, it seems to occupy a determining place. The second dimension that we will discuss will then be the interactive dimension, the third the social dimension.

The interactive basis of the knowledge construction process

The interactive dimension evokes the situations with which the subject is confronted and within which his knowledge comes up against new objects (objects which can, among other things, be codified knowledge). It is therefore an interaction of the subjects old knowledge (its already there, its representations, its theories in the head, its conceptions) with the new to be learned, encountered in contextualized situations. Codified knowledge is therefore one of those objects that the subject encounters in situations and in the particular physical and contexts of school. A constructivist approach which takes into consideration the interactive dimension, in the piagetian sense of the term (interacting old knowledge with new objects in a situation) does not ignore « Codified Knowledge » , quite the contrary. By this interactive dimension, we essentially evoke the fact that the subject constructs new knowledge and modifies old knowledge because he finds himself in interaction with his physical and social environment. Learning developes thanks to the interaction that the subject establishes with their environment. In terms of school learning, this means that the subject can only learn in a situation. The

situation with which the subject is confronted contain in a school context, the « codified knowledge » to be learned, it is generally « put into a situation ». This aspect is very important because it is through theses situations that reflexive dialectic « Savoir\connaissance », mentioned in the previous paragraph, can really take place. The reflective and dialectical activity of the learning subject is therefore only possible if there is interaction with the physical and social environment and encounter; in this environment; with the object to be learned. In the school, the interactive dimension is, therefore, the one which provides the process of knowledge construction with its basic material for the knowledge to be constructed about codified knowledge. This dimension feeds the reflective and dialectical activities of the constructivist dimension, the latter not being possible without the interactive dimension of our model.

These two dimensions therefore work together, in close synergy. One not being possible without the other. It is probably the interaction dimension which best responds to the critic of a constructivist approach to school learning which would exclude any reference to an object to be learned, whereas codified knowledge cannot be evacuated. The interactive dimension, in the Piagetian sense of the term (the dialectic of the subject's prior knowledge with the object to be learned), rehabilitates "codified knowledge" in the constructivist perspective of learning, without betraying the constructivist paradigm itself. (…) the object is never known except through the thought of a subject, but the subject only knows itself by adapting ti the object (Piaget,1976;145). This is how action, at the heart of constructivism, brings together the subject and the object.

The socio dimension of the knowledge construction process

Obviously in a school context, but not only in a school context, social interaction constitutes an essential component of the knowledge construction process. These social interactions consist, on one hand, exchanges with peers, and on the other hand, of exchanges with the adults. But again, the process is complex. If learning is strongly socially determined, social interaction are only one dimension among many others. The simple question of the purpose of school learning generates, for example reflections which relate as much to the nature of school learning as to the social relevance of their results and to that of the very learning of codified knowledge.

Furthermore, if the subject constructs his knowledge himself, he also has responsibility for it; we then arrive at another category of questions, ethical this time however important. The « socio » dimension in the knowledge construction process therefore has a triple anchoring: That of social interactions which cause inter- and intra- individual socio-cognitive conflicts, that of

the inclusion of the school and codified knowledge in a finalized social environment and that, ethical of responsibility of the learner in the face of the knowledge he constructs which is necessarily his own.

The articulation of these three dimensions with each other.

The three dimensions very quickly mentioned (Constructivist, Interactive and Socio) are interrelated within the SCI model. Not only do they function by constantly articulating with each other, but in addition, each always feeds the other two. It is functional solidarity of those thrice dimensions that makes the SCI model an interesting approach to knowledge construction processes. Taken in isolation, each dimension quickly becomes obsolete and cannot by itself explain the knowledge construction process. For example, on its own the constructivist dimension isolated from the other two, could only account for mechanisms running idle. The interactive dimension isolated from the other two, would explain an interaction of knowledge with components of a physical environment without being able to determine why. Finally, the "Socio" dimension isolated from the other two would explain relationships between individuals independently of any learning and knowledge construction project. The model that we are developing can therefore only be understood in the close articulation of its three dimensions with each other.

The implementation of the new 2018 curricula is presented according to a competence-based approach (CBA). CBA facilitates the development of competences thus it's coherence with the socio-constructivist and interactive model of knowledge constriction. According to socio-constructivist perspective of learning, interactivity, situational cognitive conflict are fundamental. From this perspective, knowledge is located in a certain social and physical context. We can also establish that competence can only be defined according to situations, so they are just as much situated as knowledge in a social and physical Context. The concept of situation then becomes the central element of learning It is in situation that the learner constructs, modifies or refutes situated knowledge, and develops equally situated competences. This is a decisive observation for the development of school learning.

The situations within which learners can construct knowledge about themselves and develop competences are decisive from a constructivist perspective. It is therefore no longer a question of teaching decontextualized subject content (the area of a trapezoid, the addition of fractions, a mental calculation process, a syntax rule, a mode of conjugation, etc.) but good to define situations within which learners can construct modify or refute knowledge and

competences about these subject contents. The disciplinary content is no longer an end in itself, it becomes a means for the treatment of situating in the same way as other sources. This is a true Copernican revolution. The task is complex. It is no longer a question of starting from a mathematical notion, an element, French grammar, a classification of plants or even a historical fact described in a study program, it is rather a question of to analyse situations to check with the learner how to build knowledge to effectively manage these situations. Moreover, the learner will also have to use his knowledge (as a resource among others) to develop competences. In short, from this perspective, the teacher's task becomes complex: creating situations to allow the learner to construct knowledge and develop competences

From a socio constructivist perspective, competences can only be built in situations. Situations are therefore a source of competences it is also these same situations which justify their viability, they are then a criterion of competences. Source and criterion of competences, situations are also source and criterion of knowledge. The "source" situations of knowledge allow the subject to construct the latter. The knowledge "Criterion" situations test viability. It is therefore in situation that the subject constructs his knowledge if it is viable in these situations, is also one of the resources (among all others) which allow the subject to develop competences in these situations. If this knowledge contributes to the development of a competence, this competence in turn becomes a criterion for this knowledge which will be viable in this context as long as it allows the competence to successfully deal with the situation.

The loop therefore closes knowledge and competences are closely linked within situations from such a perspective, the concept of competence is therefore not incompatible with a socio-constructivist paradigm. It is a matter of freeing it from aprioristic definitions. and developing it in a situation. Competences and knowledge are built in close interaction and are temporarily viable in a situation. Moreover, beyond its more global character than knowledge (Since competences call on other resources than knowledge) a competence from a socio-constructivist perspective, accepts the same characterizations as knowledge, Returning to the first approach to the concept of competence, we can now write that a competence is (1) Constructed, (2) Located (3) Reflexivity (4) temporarily viable beyond this quadruple characterization, competence fulfils specific functions: (1) mobilize and (2) Coordinate a series of varied resources (Cognitive, affective, social, contextual, etc.); (3) Successfully deal with the different tasks required by a given situation and (4) (Vary the social relevance of the results of the treatments carried out in this situation.

To make it Compatible with a socio-constructivist perspective (as suggested in the new 2018 curricula) the concept of competence must be extricated from apriorist definitions and reconsidered through a constructivist point of view. This is a socio-constructivist refocusing of the concept of competence. In this case, the concept of competence can be part of constructivist epistemological paradigm of knowledge. Moreover, when associated with a reflection on knowledge and embedded in situations, the concept of competence will probably make it is possible to strengthen the socio-constructivist thesis as a reference to the practices of teachers.

An effective competence is built in a situation and develops within the class of situations to which this situation belongs from a socio- constructivist perspective, the learner constantly works from his own knowledge, adjusting it, modifying it, reconstructing it or even refuting it into functions 4th characteristics of situations which, constantly, test the viability of the learners knowledge. In an interdisciplinary perspective, the situations offered to learners call on resources which themselves refer to different school, disciplines, the central idea of all constructivism is that knowledge is constructed according to the situations and context which challenge the subject.

1.4.3. Application of the socio-constructivist and interactive (SCI) model of knowledge construction

To show the usefulness of their criteria, the authors applied them to analyse a certain number of definitions of the concepts of learning in the literature. We illustrate one of these analyses (Jonneart & Vander Borght, 2003, p.261) in table below

Definition: “(...) Learning is a process, modification of previous knowledge is the an integral part of this process, it is the learner who is the main actor in learning; school learning must take place in a context that is meaningful for the learner, the logic of the learner takes precedence over that of the material to be taught.

(...) Learning is essentially achieved through the behaviours, operations or interventions of the learner himself; the student personally carries a certain number of steps to appropriate new behaviours and object representations or to exchange learning is built on and with the student’s prior knowledge; the learning process discussed is strictly the responsibility of the student who is learning”, the teacher only partially controls the situation in which he places the student, the teacher is not master of another’s learning, he simply controls certain conditions in which he places the student” (Jonneart, 1995, P.39)

Table 4: theoretical framework of competence

Dimensions	Criteria	Analyse	Comments
1.Constructivists	1.1. who is the learning actor?	The learner	The learner is the main actor, moreover, he is the one who controls the learning process.
	1.2 Does the learner carryout his learning based on his own knowledge?	Yes	This dimension is explicit in the definition.
	1.3 Does learning make sense to the learner?	Yes	This dimension is explicit in the definition.
2. Socio-constructivist	2.1 Does the learner carryout his learning in interaction with his peers?	Not mentioned	
	2.2 Does the learner achieve his learning in interaction with the teacher?	Implicit	The teacher control some of the conditions in which he places the student.
	2.3 Are dialogue areas defined to allow interactions between learners, the teacher and the learning object?	Not mentioned	
3. Interactive	3.1 Is learning carried out from situations?	Yes	Learning must take place in a context that is meaningful to the learner
	3.2 Should learner discover the learning object in these situations?	Not mentioned	
	3.3 Does the learner interact with these situations and the learning object?	Not mentioned	
	3.4 the definition of the concept of learning allowed to establish a distinction between	Yes	The logic of the learner is dissociated from that of the learning object

the object of learning and the knowledge of the learner.	
3.5 Are there interactions between the learning object and the learner's knowledge?	Not mentioned

Source : Jonneart et Vander Borght, 2003.

Analysis of a definition of SCI model of learning

The conclusion drawn by the authors is that one of the definitions analysed does not satisfy all of the criteria they proposed. They therefore proposed their own definitions of the concept of learning, which satisfied all the criteria (i.e., "Learner" for criteria 1.1 and Yes for the other criteria). Here is the summary of the definition:

Learning is a dynamic process by which a leaner, having gone through a series of exchanges with these peers and the teachers, puts his "Connaissances" (knowledge) with the objective of creating new "Savoirs" adapted to the constraints and resources of the situation he is currently facing with the aim of using his new knowledge in non-didactic situations (P.266)

Jonneart and Vander Borght (2003) proposed their criteria to analyse definitions of the concept of learning, we believe that these criteria are sufficiently applicable and operational to allow evaluate learning conditions in a variety of learning contexts including that of the EIAH (les *Environnements Informatiques pour Apprentissage Humain)*. Indeed to examine the operational character of these criteria we applied them to analyse the pedagogical activity of our own EIAH.

1.5. Conclusion

This chapter examines the construction of individual and collective competences, conceptual approach and the theory related to the construction of competence by students. From a knowledge construction perspective, socio-constructivism initiated by the work of Vygotsky (1960), takes up the main ideas of Piaget's constructivism, adding the social dimension of learning. If the construction of knowledge is personal, it always takes place in a social framework. Indeed, the learner is not alone: he is surrounded by other people who have impact on him and the development of his knowledge. This mention the collective dimension of the construction of competence. In the other hands, Jonnaert and Vander Borght (2003) through their research developed a socio-constructivist and interactive perspective (the SCI model) in a

school context. This theoretical framework of the construction of competence is made up of the following three dimensions: the constructivist basis of the knowledge construction process, the interactive basis of the knowledge construction process and the socio dimension of the knowledge construction process. The implementation of the new2018 curriculum is presented according to a competence-based approach (CBA). CBA facilitates the development of competences thus it's coherence with the socio-constructivist and interactive model of knowledge constriction. According to socio-constructivist perspective of learning, interactivity, situational cognitive conflict are fundamental. The next chapter is consecrated to the implementation of the new 2018 curriculum in classroom by teachers.

CHAPTER 2: IMPLEMENTATION OF THE NEW 2018 CURRICULUM IN PUBLIC PRIMARY SCHOOLS

2.0. Introduction

Educational reform is a dynamic and continuous process aimed at adapting education systems to the demands of a constantly changing world. The imperative for educational reform is a global phenomenon, driven by the perceived need to equip future generations with the skills necessary to navigate an increasingly complex, interconnected, and knowledge-based world. The late 20th and early 21st centuries witnessed a worldwide wave of curriculum reforms, with many nations moving away from traditional, content-heavy models towards competency-based frameworks (Fullan, 2015). In Cameroon, as in many sub-Saharan African countries, the beginning of the 21st century was marked by a desire to break away from teaching models inherited from the colonial era, which were often deemed too theoretical and disconnected from local socio-economic realities (Tchombe, 2012). It is within this context of seeking greater relevance and effectiveness that the adoption of the new primary school curriculum in 2018 is situated. This curriculum, founded on the Competency-Based Approach (CBA), represents a major paradigmatic transition, shifting from a logic of knowledge transmission to a logic of building actionable competences for real-life situations. It signifies a profound philosophical shift, aiming to replace rote memorization with the active construction of meaningful skills, and to bridge the long-standing gap between academic learning and its practical application in daily life.

The journey of any educational reform is notoriously perilous. As Seymour Sarason (1990) argued in his seminal work, the "predictable failure of educational reform" often stems from a profound underestimation of the deep-seated "culture of schools"—the existing programmatic and behavioral regularities that resist change. A curriculum is not merely a technical document to be delivered; it is a cultural and political text that interacts with the complex ecosystem of the school. Therefore, this analysis will move beyond a simple description of the 2018 curriculum's content. It will critically examine the reform through the lens of established implementation theory, questioning the alignment between its progressive, constructivist ideals and the systemic realities of the Cameroonian education system. Drawing on the critical perspective of scholars like Michael Apple (1990), we must also ask political questions: Whose knowledge and whose competences are being prioritized? Does the reform empower learners to become critical, democratic citizens, or does it subtly train them for predefined roles in the economy?

To achieve this, the chapter proposes an in-depth analysis of this new curriculum and the modalities of its implementation in Cameroon's public primary schools. The stakes are high, as the success of a reform depends not only on the intrinsic quality of the curriculum document but, more importantly, on how it is appropriated, interpreted, and translated into concrete pedagogical practices by frontline actors, primarily teachers (Roegiers, 2016). Therefore the chapter is structured into three main parts.

First, it will dissect the 2018 curriculum itself, defining its core concepts and situating them within broader curriculum theories, including the influential work of Anglophone scholars like Elliot Eisner and Lawrence Stenhouse. This section will pay special attention to how the curriculum reconceptualizes the foundational skills of literacy and numeracy, which are fundamental competences for all subsequent learning.

Next, the chapter will examine the complex process of implementation, analyzing the pedagogical shifts, teacher professional development models, assessment paradigms, and the systemic challenges that mediate the translation of policy into practice. This includes an analysis of the recommended pedagogical approaches, such as active learning and learner-centered pedagogy, which are at the heart of the CBA philosophy. We will also delve into teacher training and support systems, which constitute the cornerstone of any successful reform. The new methods for assessing competences, which break with traditional summative evaluation, will also be discussed.

Finally, the chapter will operationalize this analysis by defining key variables and formulating testable hypotheses, laying the groundwork for empirical research into the reform's real-world impact. A critical analysis of the multiple challenges hindering this implementation will be conducted, whether they are material, infrastructural, human, or administrative. Drawing on academic research and institutional reports, and integrating pedagogical concepts with critical literature review, this chapter aims to provide a nuanced and theoretically grounded exploration of the opportunities and obstacles inherent in Cameroon's 2018 primary education reform which is oscillating between the promises of quality education for all and the complex realities on the ground.

2.1.The concept of curriculum

2.1.1. Definition

Generally, a curriculum is an organized educational project that defines the aims, content, learning activities, and assessment methods of a training pathway (D'Hainaut, 1988). It is not limited to a simple list of subjects or programs (the syllabus) but encompasses all planned and guided learning experiences, whether inside or outside the classroom, under the school's auspices. In the context of primary school, the curriculum is of fundamental importance as it lays the foundation for socialization, citizenship, and the foundational learning that will shape an individual's entire academic and personal trajectory.

Eisner (1994) urges a more expansive view, proposing that schools teach through three concurrent curricula. Alongside the explicit curriculum, there is the implicit (or hidden) curriculum, which transmits unstated norms, values, and beliefs through the school's social structures, teacher expectations, and classroom routines. For instance, an emphasis on individual, silent work implicitly teaches competition, whereas a classroom organized around group problem-solving teaches collaboration. Furthermore, Eisner identified the null curriculum—that which schools do not teach. The decision to exclude certain topics, skills, or perspectives is a powerful statement about what a society deems unimportant.

According to the MINEDUB (2018), the Cameroonian curriculum is designed as 'a coherent and structured set of learning and assessment situations aimed at installing and developing basic competences in the learner'. This definition emphasizes the functional and integrative nature of learning, which is the main feature of the Competency-Based Approach (CBA). The MINEDUB's (2018) definition of the curriculum clearly signals a focus on the explicit curriculum's design, aiming to make learning active and contextualized. However, the successful implementation of this design is deeply intertwined with the hidden and null curricula that operate in every school. A critical analysis of the 2018 curriculum must therefore consider not only what is stated in the official documents (the explicit) but also the values it promotes implicitly and the knowledge it may have chosen to omit (the null).

2.1.2. Level of the curriculum and typology

An aspect of education that has received attention from numerous authors internationally is that of the relationship between the different levels of curriculum. Kuiper, Folmer and Ottevanger (2013) and Van den Akker (2003; 2010) recognize that curriculum is influenced at different organisational levels of society. At government (macro-level), political and administrative decisions about the curriculum are made at school and classroom level (meso-level), the implementation of the curriculum is executed and at learner level (micro-level) the impact of the curriculum is viewed through the output. Decisions about educational goals are made at each level and different actors are involved (Van den Akker, 2003). Different stakeholders at different levels tend to influence the way the curriculum should be viewed at that particular level and this difference between different levels of the curriculum has an important bearing on teaching as with all other subjects, the quality of science education depends on a strong relationship between the vision of the curriculum developers and the consumers of the educational system (NRC, 2004.)

Thijs and Van den Akker (2003; 2009) regard the levels of curriculum as intended (curriculum plans at the macro-level), implemented (meso-level, consisting of the content, time allocations, instructional strategies of teaching and learning to take place) and attained curriculum (micro-level, consisting of competencies and attitudes learners demonstrate as the result of teaching and learning process). Aikenhead (2006) views curriculum as that plan of activities that prescribes what will happen in schools (intended curriculum) and regards the actual instructional practice as the implemented curriculum. Mills and Treagust (2003) recognise the intended, implemented and the achieved curriculum and regard the perceived curriculum as a level between the implemented and the achieved curriculum. Decisions about the educational goals are made at each level and different actors are involved (Van den Akker, 2003).

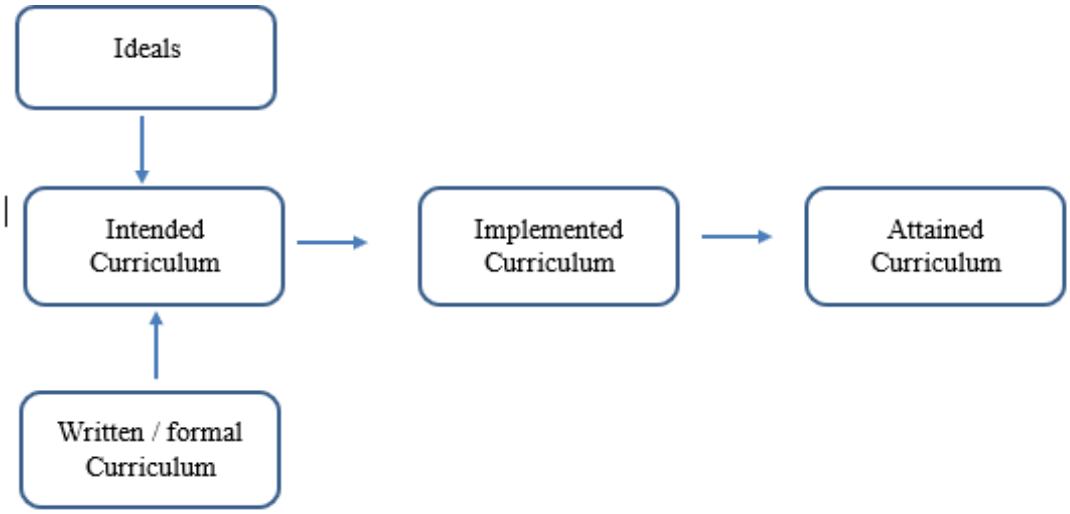

Figure 1 : Model of curriculum alignment (Taken from Van den Akker, Fadogilo and Mulder (2010)

- **The intended curriculum**

The intended curriculum is determined by the educational organisational system (macro level) of many countries in the world (Van den Akker, 2003;2010). It usually includes goals and expectations set by the curricular policy makers and curriculum developers along with text books, official syllabi or curriculum standards set by a particular nation or organisation (Kuiper, Folmer, Ottevanger, 2003; NRC, 2004; Van den Akker, 2003). The intended curriculum comes in two important forms, namely ideal and the formal curricula .The ideal curriculum also known as the ideological domain constitutes the original ideas of the curriculum developers (Goodlad et al, 1979, Thijs Van den Akker, 2009; Van den Akker, 2003). It considers the convictions and values of content experts outside the school system (Van dan Akker, 2003). When the ideas of the developers are written down to produce a document or converted into curriculum materials, that constitutes the formal curriculum. The domain of the formal curriculum is represented by documents that have been developed inside the school system, for example syllabi, practical guides which are officially approved by the curriculum coordinator or any government agent (Van den Akker, 2013, 2010) . In the process of converting the ideals of the developers into the formal curriculum, there is a chance of distorting the curriculum as language can change the original ideas of the developers. The danger is that the assessment of learners may occur against a curriculum which was never implemented due to the distortion originating from the curriculum developers themselves (Van den Akker & Voogt, 1994).

- **The implemented curriculum**

The implemented curriculum which is enacted at the school level (meso-level) comprises of content, instructional strategies and time allocations which are meant to guide teachers with regard to the way the intended curriculum should be put into practice. For Goodlad, Klein and Tye (1979), Thijs and Van den Akker (2009) and Van den Akker (2003), the implemented curriculum is viewed in two forms, namely the perceived curriculum which refers to the interpretation of the users of the curriculum who are the main actors, the teachers. The perceived curriculum takes into account the philosophy of the teacher, the lesson plans, schemes off work, the interpretation of what should be taught in the classroom (Goodlad, Klein & Tye, 1979; Van den Akker, 2003). The actual instructional process is regarded as the operational curriculum (Kuiper, Folmer Ottevanger, 2013, Van den Akker, 2003). It considers the expertise of the teachers interpreting the ideas of the developers and putting them into practice, as well as being able to charge the thinking of the learner.

- **The attained curriculum**

The attained curriculum which is also regarded as the experiential curriculum refers to the reactions and outcomes of the learners after receiving instruction (Thijs Van den Akker, 2009; Van den Akker, 2003; 2010). The interactive process between the learner and the learning materials, compounded by the teacher interactions contribute to the output of instruction and translates into how learning is achieved (Ennis, 1990). A common broad distinction between the three levels of the intended, implemented and attained curriculum is outlined in table 5 below.

Table 5: Typology of Curriculum representations

INTENDED (MACRO)	Ideal	Vision (rationale or basic philosophy underlying a curriculum)
	Formal / written	Intentions as specified in curriculum documents and / or materials
IMPLEMENTED (MESO)	Perceived	Curriculum as interpreted by its users (especially teachers)
	Operational	Actual process of teaching and learning (also : curriculum-in-action)
ATTAINED (MICRO)	Experiential	Learning experiences as perceived by learners
	Learned	Resulting learning outcomes of learners

Source: the researcher, 2025.

2.1.3. From the official curriculum to the Classroom

Keeves (1992) describes three curriculum levels which correspond to three moments in its development: the official curriculum (intended curriculum), the curriculum implemented in classrooms (implemented curriculum) and the curriculum mastered by students (achieved curriculum). Between the three levels of curriculum described by Keeves, there are many breaks, transformations, mediation and reconstructions, because the transposition of official curriculum content to student learning processes in classrooms is very complex, and certainly not linear. The progression from one curriculum level to another is to not automatic. “It is obviously necessary to demonstrate a strong dose of naivety to assume that the transition from one level to another can take place without alteration or transformation to education researcher is guilty of such innocence anymore” Crahay, Audigier and Dolz (2006, p.17). These three curricular levels involve different actors and places which are only connected to each other very episodically. A student in a classroom often knows nothing about the structure of the education system in which he is the main interested party. The three curricular levels are presented in the table below. They illustrate the rationality of a system based on levels linked logically and chronologically Although it is indeed the same curriculum that progresses from one level to another, it nevertheless, takes different forms

from one box to another in the table, the conceptual framework is essentially located at the level of the official curriculum, it is at this level that its different components are processed. Those dimensions then undergo a series of interpretations, transformations, deconstructions and reconstructions depending on the education actors at work at this level, from political leaders to students in the classroom.

Table 6 generally describes the work carried out at each of the curricular levels. The three levels of a curriculum ultimately have little interaction with each other furthermore, a curriculum seems to function essentially in a downward movement, from ministerial offices to classrooms. There are few reverse movements that would allow feedback from the classroom to the official curriculum

Table 6: From the official curriculum to the Classroom

At what level of the curriculum?	**Or?**	**Who?**	**What?**	**What else?**
Level of the prescribed curriculum (Intended curriculum)	Office of the minister of education	Technical advisors to the office of the Minister of Education	Define the main curricular orientations	Purposes specified in a framework document the curriculum orientation framework
	Ministries	Civil servants, technicians specialized in waiting study programs, inspectors, educational advisors, specialists in learning areas, teachers.	Analyse the purposes and the main orientations of the curriculum Research their implementation methods in the education system. Design official programs according to curricular requirements. Define the administrative arrangements for implementing new programs	Learning content codified in official and prescriptive programs. Disseminated in the education system. Texts defining the policies and procedures for evaluating learning curricular's operationalizing the implementation of new programs.
Level of curriculum and programs taught (Achieved curriculum)	Schools, teachers offices and classrooms	Teachers	Analyse, interpret and teach according to their degree of adherence to the curriculum orientations and their understanding of these orientations and the content of the programs	Program content Interpreted and transposed by teachers into classrooms.
	Publishing and teaching material design houses	Publishers and authors of school textbooks, designers of teaching materials.	Analyse, interpret and translate curricula orientations and program content into school textbooks, teaching guides and teaching materials.	School textbooks, teaching guides various repositories, teaching materials etc.
Level of school learning and its results (implemented curriculum)	Classroom, activity spaces for learners	Learners	Construct knowledge and develop skills based on certain curriculum orrientations and certain program elements interpreted by teachers	Knowledge and skills constructed by students from program elements interpreted and selected by the teacher and the author of school textbooks and teaching materials.

Source: Keeves, 1992

2.1.4. Curriculum transposition, curriculum implementation and stages of implementation

Curriculum transposition

A curriculum, as a whole theoretically articulates three levels together. If is not a question of three different curricula but rather of the progressions of the same curriculum, from its official definition to school adaptation to teaching and learning approaches constitute in fact a transposition close to that defined for didactics of the disciplines by Chevallared (1985). This transposition is an illustration of the dynamism, even the movement of a curriculum which moves by transforming itself and adapting from one level to another. Each of those curricular levels necessarily corresponds to the results of transposition which allowed their positioning at a given moment in the curriculum. Chevallard frames the transposition within didactic and disciplinary perspectives. It traces certain, shifts experienced by school knowledge in Mathematic. Martinand (2001) accepts a plurality of references for a learning object. This so-called didactic transposition has become an interesting analytical tool for understanding the multiple paths of knowledge through its codifications in the study programs of a given curriculum: Curriculum codified knowledge written in the study programs only constitutes an official text, nothing more. It still has a long way to go before leading to the construction of knowledge by students who, in any case distort it to adapt it and then construct it in a form that is their own.

Martineau (2001), Jonnaert (1988) and Chevallard (1985) conceive didactic transposition as a tool for analysing the curricular progression of knowledge codified in study programs. For several CUDC researchers, this transposition presents itself as a curricular tool rather than a didactic one. Indeed, this transposition, even if it was didactic, analyses the transformation of an object of knowledge in its curricular progression. The transition from the concept of didactic transposition to that of curricular transposition seems interesting. It is obvious that didactic transposition, the decipher this particular journey of knowledge until its codification in study programs or even until appropriation by students (Jonnaert and Vanderborght, 2009), circulates in incessant comings and goings between the three levels of a curriculum. “Curricular transposition” is a mechanism for understanding the processes through which educational undertakings are created and implemented It draws on the concept of didactic transposition developed by francophone theorists such as Chevallard (1985), Conne (1986), Perrenoid (1986;1992) and Tochon (1991). Didactic transposition refers to the way an item of knowledge changes as it

becomes part of a curricular programme, for example, Einstein's theory of relativity does not exist in the same form in schools as it does in the scientific community: it undergoes certain modifications when moving from the latter to the former, in the theory, a distinction is made between external and internal transposition, the former referring to the transposition of knowledge into school curricula as outlined above and the latter to the transposition of the official curriculum into the content taught in practices by teachers (Perrenoud, 1998). Tochon (1991) calls the latter "pedagogical transposition".

The concept of didactic transposition was initially developed in relation to didactics of mathematics, and is most applicable to this area and to the natural sciences, yet Perrenoud (1998) and others have proposed extensions to the theory to include those school disciplines that stem from social practices rather than factual knowledge. There are clear points of contact between didactic transposition and Bernsteins (1996) notions of the recontextualization and reproduction of discourses from the field of knowledge production in the school setting. However, the fact that didactic transposition takes knowledge (or, in some cases, practices) as its starting point, means that the theory works well in relation to individual subjects, where the movement of knowledge from society to school can easily be seen. Yet, it is not as readily applicable to the curriculum as a whole, being a collection of various areas chosen on the basis of fundamental beliefs and values. It is necessary, therefore, in an analysis of transposition, to take account of this previous stage at which there exists an ideal of a human being or society to be developed. Educational undertakings have an element of purpose that is not captured in didactic transpositions this paper, therefore, extends the ideas of didactic transposition theorists to encompass a broader conception of education. Curricular transposition refers to the materialization or concretization of aspirations or ideals into educational programmes, approaches and activities. The figure below shows curricular transposition in graphic form.

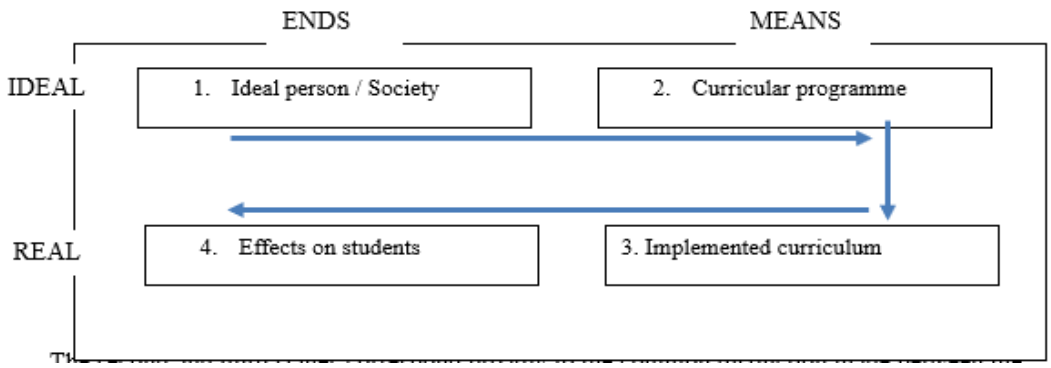

Figure 2 : curricular transposition in graphic form

The second and third stages correspond broadly to the common distinction made between the "official curriculum" and the unofficial or taught curriculum, and the fourth stage to the "achieved curriculum" (e.g Mullis et al. 2005). Perrenoud (1998) outlines a similar scheme showing the movement between current knowledge and practices in society formal curriculum objectives and programmes, real curriculum, content and teaching and effective and durable learning of the pupils (Later he replaces this model with another more complex one revolving around the notion of competencies). However, Perrenoud's model represents a linear relation and does not show the movement between planes of Ideal / Ireal and ends /means. A two-dimensional model is therefore proposed in its place, incorporating these aspects, and focusing on the emergence of curricula from underlying aspirations, rather than knowledge and practices. This scheme applies generally to the curriculum. In the first stage, there is a conception of a valued end.

From that, an ideal educational program is created, which is then modified as it is implemented in a real context. The implemented Program then influences the students (not necessarily in the way originally envisaged), affecting the construction of competences.

Curriculum implementation

Leithwood (1982) like most other curricularists, considers implementation as a process that attempts to reduce the difference between existing practices and the practices suggested by innovators or change agents. Obviously, it takes time. They also that implementation is an interaction between the curriculum that has been written and planned by the person who delivers it.

Curriculum implementation can also be seen as the translation of the objectives of the curriculum from paper to practice (Okoro, 2008). This is achieved when the teacher is handed the curriculum and ends when the learners have been exposed to the learning experiences prescribed in the document. There are intermediate steps which includes verbal and non-verbal exposition, practical in the laboratories, interactions, workshops, fieldwork, teacher-student interactions, student-materials interactions and the evaluation and feedback. It shows that curriculum implementation means the actual exposure of the learner to the contents of curriculum and the real teaching and learning activities that involve the teachers, learners and materials. Curriculum implementation is experienced when the inert curriculum has been translated into operating curriculum. Okoro, (2010), averts that curriculum implementation makes teachers to prepare lesson notes, use reinforcement and motivational strategies, classroom control and creation of friendly relationship, application of theories and principles of learning, effective use of evaluation techniques and adequate consideration of learners cognitive styles. This facilitates resolution of instructional challenges as well as the achievement of overall goals of education, which is the vision of the 21st century.

Stages of curriculum implementation

Nkeng and Mambeh (2007) are of the view point that, when educational goals and aims are formulated, they are first changed into a syllabus, then a scheme of work and finally into lessons that are taught in the classroom. The various stages involved in curriculum implementation is operationalize as discussed below.

- Curriculum

To Nkeng and Mambeh (2007), curriculum is the way in which a society ties to meet its educational goals. It consists of not only subjects but also all what is planned and guided by the school. Different subjects have specific content to be taught. To Opertti, the curriculum is supposed to be flexible which can be a key to the creation of schools that meet the needs of all the students that is, can meet the diverse needs. To Ambe and Ajeagah **(2002, p.22)** the curriculum represents the plan for the achievement of the present and the future goals of the nation. It's indeed a way of structuring the conditions that would translate the idea into realities, theories into practice, covert and principles into observable and measurable actions. It is the way in which a society tries to meet

its educational goals(sustainable education). It does not only concern the subject only but also all what is planned and is guided by a school.

- The syllabus.

Kibinkiri(2017), defines a syllabus as a course outline comprising a collection of topics on the same subject matter and a series f statements of what is to be learned within a given time frame. Syllabuses are designed by panels of specialists and teachers with experiences in the subject. Many consultations are done before the final document is produced. It is then submitted to the ministry of education for approval. That is why the syllabus can guide and inform teachers in schools. Some syllabuses are printed in a general manner consisting simply of a series of statements of what is to be learned for example, simply interest, reproduction, latitude and longitude through which the education gotten can be said to be sustainable etc.

However, the common elements found in most types of the syllabus include, course objectives, course content, teaching strategies, teaching materials and methods of evaluation. The format of a syllabus may differ from subject to subject. When a school receives the syllabus, the document is interpreted and divided into topics to be taught each term. The grouping of these topics depends on the complexity of concepts within each topic, relatedness of topics and season of the year. Once the school syllabus is ready, each teacher will be asked to draft a scheme of work.

- Scheme of work

Mabou(2016), defines a scheme generally as a breakdown of topics into teachable units or lessons that are sequentially arrange to facilitate teaching. There are different scheming formats used, depending on the conventions in each school, but most of them include the date, topic, objectives, resources to be used, assignment and evaluation. In the UK, the scheme of work is a guideline that defines the structures and the content of an academic course. It is usually an interpretation of a specification or syllabus and can be used as a guide throughout the course to monitor progress against the original plan. Therefore, to achieve the aim of sustainable education, the teacher’s scheme of work will act as a plan which will help or enable the teacher to organise the teaching activities that will suit the aim and objectives ahead of time. Thus, it is a summarised forecast of work which the teacher considers to be adequate and appropriate for these topics which

are already set in the syllabus. Ambe and Ajeagah(2004), say that there are certain principles that are to be followed when preparing a scheme of work.

The syllabus must be put first into the order in which its content would be taught. There should be sequence and continuity. For example, in mathematics, simple interest cannot be easily taught until children have learned percentages. This is because the children need the knowledge of solving problems in percentages to successfully solve problems in simple interest. Thus, what the children learn in school should be used continuously in the resolution of their daily problems encountered.

A scheme of work must give suggested allocation of time for the teaching of each section of the syllabus and perhaps mention recommended textbooks. Some schemes of work allocate the work to be covered on monthly basis while others do so on weekly basis and yet some indicate the ground to be covered in each lesson.

- Lesson plan

Kibinkiri(2017) defines lesson plans as guidelines drawn up to help the teacher in conducting classroom lessons. That is, from the scheme of work it is later arranged in units of related ideas or topics with some central themes which are usually associated to proximate goals. UNESCO holds the view point that education at all levels can shape the world of tomorrow by means of equipping the individuals and the societies with the skills, perspectives, knowledge, values and behaviours to live and work sustainable matter. There are two main types of lesson plan.

- General lesson plan or topic or unit plan

It is also called topic or unit plan. It is drawn up to indicate the major objectives to be achieved in each topic or unit. It shows the breakdown of a topic or units into daily lessons or modules. It also shows the major teacher and pills activities as well as teaching materials that will be required to achieve the objective of the unit or topic.

- Daily lesson plan or individual lesson notes.

To Nnam(2016), a lesson plan is part of a unit of study, which may last from a few minutes to one or two hours depending on the level of the students. The individual or specific lesson note is

narrower in that, it covers only one aspect of a given topic or unit and is limited to one lesson period. The individual lesson notes are an outline of the important aspects of a lesson arranged in the order in which they are to occur. An individual lesson note should include the following objectives, outline of subject matter related to the objectives; the method to be used, suggested pupils and teacher's activities, teaching materials and evaluation modes.

They are different models of individual lesson notes. Whatever a teacher chooses depends on his or her professional experiences. Teachers should strive to use models, which encourage thinking in the learners rather than rote learning. Students in training should use the plans recommended by their teachers or inspectors.

2.2.The New 2018 Curriculum in Primary School in Cameroon

At its core, a curriculum represents a society's official answer to the question of what knowledge is of most worth. It is a major political and social act that redefines the goals of education for a nation. The Cameroonian 2018 curriculum reform is a bold attempt to provide a new answer to this question, one that emphasizes functional competence over declarative knowledge and seeks to address criticisms of previous programs and to align with international standards in pedagogy. Understanding its architecture requires a deep dive into both its explicit design and its theoretical underpinnings.

2.2.1. The public primary schools in Cameroon educational system

Cameroon primary schools are under the control of Ministry of Basic Education (MINEDUB). The precondition for children to be enrolled in the primary is that they must be about six years of age. This is the bases of elementary education though the system includes and encourages pre-school (nursery school) where children are supposedly enrolled for at the age four to prepare them for elementary education. The primary education is the foundation of sustainable learning. It is on this basis that Cameroon has ratified several conventions related to compulsory education. The new Cameroon Nursery School and Primary curricula of 2018 replaced the ones of 1987 for the Nursery and that of 2000 for the Primary. It is hoped that the entire education community will explore the document and make maximum use of it in order to enable the nursery and primary school learners attain knowledge based, skill-based and attitude-based proficiency upon graduation. In this way, they will be able to cope with the different educational and/or

professional options available to them at the end of the primary school cycle and embrace lifelong learning, no matter the post-primary path they choose.

The age-old mergence between the two systems of education still stands the taste of time today. Just like the country's bilingual nature, Cameroon Primary Education under the Ministry of Basic Education (MINEDUB) operates in a dual system (British and French). The primary education if offered by the state, the private individuals and the mission to every citizen at different cost. Since the UNESCO's operation education for all (2000), the Cameroon government declared primary education free, compulsory and opened more schools around the country to increase access and affordability by all. Although declared free, families pay for uniforms, book fees, and sometimes even anti-malaria prophylaxis for pupils. Primary education is one of the most populated levels of the Cameroon educational chain. It is the basic and happens to be one of the most delicate as it faces numerous challenges from personnel, to infrastructure, funding and even leadership.

According to Nguimbous (2018), between 2011 and 2017, the number of elementary schools identified in Cameroon improved from 14,712 to 18,596, an increase by 26.7%. in the same light, the number of teachers grew by 23% from 79,181 to 97,333 over the same period. However, indicated in the document, the number is unevenly dispatched across the country. For 1.2 million pupils registered in the central and Coastal region, there are only about 40,000 teachers, 31,000 classrooms and 6,000 schools. According to the latest Human Development Index report published by the United Nations Development Program (UNDP), the average schooling time among young men is 7.6 years while the required time is 13 years.

The primary school is offered in two systems as earlier mentioned. The Anglo-Saxon takes six years (from class 1-6) where the learners write the first school living certificate and the common entrance that grantee access into college. Meanwhile the francophone learners take 6 years and complete the sixth year with BEPC. The primary education is spurred by different yearly plans. The primary objective of the current plan, "*Document de Stratégie du Secteur de l'Education et de la Formation 2013-2020*" is the achievement of quality universal primary education. This objective aligns with the national strategy for growth and employment goal of providing the production system with human capital capable of supporting economic growth. The country has made notable progress in recent years on some indicators, including increasing the textbook/learner ratio, recruiting and deploying new teachers and assessing learning outcomes.

2.2.2. Legal framework guiding the Cameroon primary education

During the period from independence in 1960 to the 1990s, the Cameroonian higher education system was heavily burdened by its inability to adequately meet or adapt to fast-changing needs of individuals and the society (Samfogah, 2012). This situation became more critical especially with the already existing and developing mishaps like economic crises, increase enrolments, reduction in funding, and a host of others distorting the functioning of higher education institutions all over the world. As a result, the state formulated and applied diverse internal and external policies on the educational system of Cameroon in order to tackle the problems by implementing high impact innovations in the system. Among the numerous reforms enacted, the higher education saw a great deal of them enacted directly. Among them we have, Law Number 98/004 of 14th April 1998 on the Orientation of Education in Cameroon, Law N^{O} 005 of 16 April 2001 to guide higher education, the poverty reduction strategy paper (PRSP) in 2003-2007, the Sector-Wide Approach (SWAp) in 2005, the Licence-Master-Doctoral (LMD) of 2007, Higher Education Act no 110/2009. Coll, Growth and employment strategic pepper, 2010 – 2020, Decree N^{O} 2011/119 of 18 May 2011, the Sustainable Development Goals (SDG) in 2015, the law of 16 April 2016; the emphasis of higher education in Cameroon and the National Development Strategy 2020-2030 (SND 30).

These reforms have masterminded the progress of higher education in Cameroon till date but the expected results are yet to be fully experienced. In the sphere of higher educational learning, all these policies are meant to be implemented and objectives attained within the shortest possible time. Although it may become problematic when there are several policies given to education system within a short period which are bureaucratically slow in decision making and lacks effective quality assurance mechanisms. Although these policies are aimed at renovating the educational system and make teaching-learning more skill-oriented, the stated objectives are yet to be fully attained, given that the same problems still affect our educational system and graduates till date.

Law Number 98/004 of 14th April 1998 on the Orientation of Education in Cameroon

Section 4 of Law no° 98/004 of 14 April 1998 laying down guidelines for education in Cameroon states that the general purpose of education shall be to train children for their intellectual, physical, civic and moral development and their smooth integration into society bearing in mind prevailing economic, social-cultural, political and moral factors. This law also

prohibits all forms of corporal punishment in the school setting and this is in accordance with law N° 06 of 18th January 1996. By virtue of this law, the restructuring of the training cycles are supposed to be enhanced by respective counselling services through orientation of pupils and students in schools in order to curb with the high rates of failure and dropout. The purpose of this law was to ensure educational quality in ensuring that learners gain professional skills which would enable them become creative and self-employed (Fonkeng, 2006, p. 231). But a critical look of the school system shows that it is not professionally oriented. The teaching –learning process is still highly theoretical. This may explain why school failure and dropout at both primary and secondary level continues to be high, because students would not develop interest in theoretical ventures only.

An educational system that is theory based will render the school system externally inefficient since graduates will not be able to contribute in nation building through the employment process.

On the 17th and 18th of October 2007 in a workshop held in Yaoundé in order to reinforce the capacity of head teachers and principals, they were trained on how to carry out pedagogic supervision, classroom visitation and the management of libraries and multimedia centres. Here, the main objective was to revamp the pedagogic in the country so as to render the system performant competitive, but unfortunately only 200 principals of schools were present. This reduces the possibility of ensuring educational quality at the national level in this sector.

According to circular N° 036/B1/1464 of 14 October 2002 defining the pedagogic role of the school head, it is stipulated that: "*the school heads is in charge of pedagogic control, he has the obligation of organizing pedagogic seminars in the schools system*". Circular N° 1418/08 of 1st August 2008 lays emphasis on the amelioration of quality of pedagogic activities by school administration. It is rather funny that most principals seem not to be committed to their task. Most of them seem to be more concentrated on administrative duties at the detriment of pedagogic activities and school discipline both for teachers and students. In most schools, principals have mismanaged school funs so much that the running of academic activities throughout the school year will be impossible. This implies that most principals do not seriously and whole heartedly apply policy on education and many seem to let their personal interest prevail over public interest. However, when the principal who is the eyes of the government fails to do his work appropriately,

other processes in the school system would not function properly, and this will hamper quality in education.

2.2.3. Overview of the 2018 Curriculum

A curriculum is defined as a **planned sequence of instruction** that outlines learning objectives, content, teaching methodologies, and assessment strategies (Tchombe, 2018). In Cameroon, the primary school curriculum is designed to develop **core competencies** in literacy, numeracy, and life skills.

Goals, structure, and key innovations compared to previous curricula.

The 2018 curriculum was developed to address the shortcomings of the 2002 program, which was based on Objectives-Based Pedagogy (OBP). This OBP was heavily influenced by the behaviorist principles of Tyler's (1949) Basic Principles of Curriculum and Instruction. The 'Tyler Rationale', with its linear sequence of defining objectives, selecting experiences, organizing them, and evaluating, dominated curriculum design for decades but was often criticized for its fragmentation of knowledge and its limited ability to make students operational in complex real-life situations (Fouda, 2019). The Cameroonian reform embraces a more holistic, process-oriented philosophy.

The goals of the curriculum, such as forming a "competent citizen," resonate strongly with the progressive educational philosophy of Dewey (1916), who argued that education is not merely preparation for life, but life itself. Dewey (1916) advocated for an education grounded in experience, problem-solving, and democratic participation, ideas that are echoed in the 2018 curriculum's emphasis on solving real-world problems and promoting values like 'living together'. The major goals of the new curriculum are multifaceted:

- To train a competent citizen: Capable of solving concrete problems, taking initiative, and adapting to social and economic changes.
- To promote bilingualism (French/English): No longer as two separate subjects, but as integrated languages for communication and learning.
- To integrate cultural and universal values: To form a citizen rooted in their culture but open to the world.
- To develop critical and creative thinking: To encourage students to question, analyze, and propose original solutions.

The structure of the new 2018 curriculum around five "learning domains" and, most importantly, "families of situations" is its primary innovation. This structure attempts to operationalize the theory of situated learning, famously articulated by Lave and Wenger (1991). They argued that learning is inseparable from social practice and occurs most effectively within "communities of practice." By organizing learning around authentic, life-like problems (e.g., managing family resources or protecting the environment), the curriculum tries to simulate these authentic contexts, moving learning from the abstract to the concrete. This approach aligns with the work of Stenhouse (1975), an influential British curriculum scholar who championed a "process model" of curriculum development. For Stenhouse (1975), a curriculum should not be a pre-packaged product for teachers to deliver, but rather a hypothesis to be tested and refined by teachers in their classrooms. He saw the teacher not as a technician, but as a "researcher," and a curriculum as a tool to empower this research. The CBA, with its flexible situations, theoretically provides teachers with this agency, although, as we will see, systemic constraints often prevent this ideal from being realized.

The structure of the curriculum is one of its major innovations. It moves away from a strict disciplinary logic in favor of five learning domains which are Languages and Communication, Science and Technology, Social and Human Sciences, Arts and Culture, and lastly Personal Development and Physical Education. Each domain brings together several disciplines, thereby promoting interdisciplinarity. The fundamental innovation is the organization of learning around ‘families of situations’. A family of situations is a set of concrete and meaningful problems for the student, which they will learn to solve by mobilizing various resources (knowledge, skills, and attitudes). For example, the family of situations ‘Protecting oneself against diseases’ will mobilize knowledge in science (hygiene, microbes), language (reading instructions, describing symptoms), and social sciences (vaccination campaigns). This approach contrasts sharply with the old model where chapters were treated in an isolated and abstract manner.

Compared to previous curricula, the key innovations are therefore:

- The shift from Objectives-Based Pedagogy (OBP) to the Competency-Based Approach (CBA).
- The focus on the learner as the main actor in their learning.
- The introduction of problem-situations as the starting and ending point of learning.

– The integration of cross-cutting emerging themes such as environmental education, financial literacy, living together, and information and communication technologies (ICT).

These key innovations are thus a shift from a product to a process view of curriculum; from behavioral objectives to holistic competences; and from decontextualized content to learning situated in meaningful problem-scenarios. This represents a move towards a constructivist paradigm, where knowledge is not transmitted but actively constructed by the learner through interaction with their environment, a principle central to the work of Jean Piaget and Lev Vygotsky.

2.2.4. Curriculum content related to literacy and numeracy

Literacy and numeracy are considered the pillars of basic education. The 2018 curriculum gives them a central place, redefining their objectives through the lens of the CBA.

Specific objectives and learning outcomes.

For literacy, the objective is no longer simply to learn to read and write in the mechanical sense (decoding and encoding). The reform moves beyond a narrow focus on decoding and encoding towards a broader understanding of literacy as communication. This aligns with the concept of "multiliteracies," proposed by the New London Group (1996), which argues that in a globalized, multimedia world, literacy must encompass a wide range of communication forms, including visual, digital, and critical literacy. While the Cameroonian curriculum focuses primarily on print and oral literacy, its stated goal of producing and understanding a "variety of texts" to "react critically" opens the door to this more expansive view. The emphasis on using language to accomplish tasks as writing a letter, following instructions, arguing a point, is a direct application of a functional, communicative language teaching approach. The intended competence is that of functional communication. The expected learning outcomes state that by the end of the primary cycle, the student should be able to:

- Read and understand a variety of texts (narrative, informational, prescriptive) to extract relevant information and react critically. For example, reading and executing an instruction, or reading a story and identifying its moral.
- Produce short, coherent written texts to meet a communication need (writing a simple letter, filling out a form, describing an event).

- Express oneself orally in a clear and structured manner in various communication situations (telling, explaining and arguing).

For numeracy, the curriculum goes beyond simple arithmetic calculation. It makes a critical distinction between numeracy and mathematics. As argued by American mathematician Lynn Steen (2001), mathematics is often an abstract discipline, while numeracy is the ability to use quantitative reasoning and mathematical skills in a wide range of life contexts. It is "mathematics in action." The 2018 curriculum embodies this distinction. Students are not just learning the four operations; they are learning to apply them to solve problems related to commerce, measurement, and data interpretation. The learning process, centered on problem-situations, is highly compatible with the principles of "discovery learning" championed by Jerome Bruner (1961). Bruner posited that students learn best when they discover concepts and relationships for themselves through active exploration. A numeracy problem, such as planning a small class garden with a limited budget and space, would require students to discover and apply concepts of measurement, area, and arithmetic in a meaningful, integrated way, rather than learning them as separate, abstract topics. This approach aims to build robust, applicable mathematical understanding, preventing what Alfred North Whitehead famously called "inert knowledge"—ideas that are learned but never used. Thus, the goal is to develop "mathematical thinking" that enables students to quantify, reason, and solve everyday problems. The learning outcomes include the ability to:

- Solve problems involving the four operations on whole and decimal numbers in various contexts (shopping, measurement, sharing).
- Use units of measurement (length, mass, capacity, time) appropriately to describe and compare objects or events.
- Reason logically from data presented in texts, tables, or simple graphs.
- Recognize and describe basic geometric shapes in their environment.

For both numeracy and literacy, the emphasis is on solving problem-situations that give meaning to concepts and procedures. A student does not learn division for its own sake, but to know how to share marbles equally or to calculate the unit cost of a product (MINEDUB, 2018). It is this constant contextualization that constitutes the core of the approach and the promise of more lasting and transferable learning.

2.3.The New 2018 Curriculum and its Implementation

A reform's success is forged or broken in the crucible of implementation. The existence of a curriculum, no matter how well-designed, does not guarantee its effective implementation in the classroom. The most elegantly designed curriculum is worthless if it is not enacted effectively in the classroom. Implementation is a complex, multidimensional, and often challenging process that translates curricular intentions into pedagogical realities. This section examines the immense challenge of translating the 2018 curriculum's progressive philosophy into daily pedagogical practice, using frameworks from Anglo-Saxon implementation and professional development literature to analyze the key levers and obstacles.

Definition of curriculum implementation

According to Fullan (2015), curriculum implementation refers to all the actions, strategies, and processes through which teachers, students, school administrators, and other stakeholders bring the prescribed curriculum to life. It is the transition phase between the "prescribed curriculum" (the official document) and the "enacted curriculum" (what actually happens in the classroom). Fullan (2015) said that curriculum implementation is the process of putting an idea or reform into practice. He stresses that change is a process, not an event. A critical dilemma in this process is the tension between fidelity and mutual adaptation. A fidelity perspective assumes the reform is perfectly designed and the goal is for teachers to implement it exactly as intended.

In contrast, mutual adaptation, which Fullan (1995) advocates, recognizes that the context of each school and classroom is unique. In this model, teachers adapt the reform to fit their local realities, and in turn, the reform itself may be modified and improved based on feedback from the field. While the Cameroonian state may expect fidelity, the reality on the ground is, at best, a struggle for adaptation. This is in the same line with Sarason's (1990) work who reminder that without changing the underlying 'culture of the school' such as the power relationships, the daily schedule, the assessment pressures, any new curriculum is likely to be superficially adopted but fundamentally rejected, with teachers simply overlaying new jargon onto old practices.

Roegiers (2016) emphasizes that this phase is decisive and involves conceptual and practical appropriation by teachers. Successful implementation is not measured by the mechanical fidelity with which teachers follow a guide, but by their ability to adapt the reform's principles to their specific context (number of students, available resources, local culture) while remaining faithful

to its philosophy. In the case of the 2018 curriculum, implementation requires a profound transformation of teaching postures and practices.

2.3.1. Teaching and Learning Approaches

The 2018 curriculum is inseparable from a radical shift in pedagogical approach. It mandates a move from a transmissive model, where the teacher is the holder of knowledge who pours it onto passive students, to a socio-constructivist model where learning is an active process of meaning-making (Jonnaert, 2009).

Learner-centered pedagogy places the student at the heart of the educational process. For this, Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD) is particularly relevant. The ZPD is the cognitive space between what a learner can do independently and what they can do with guidance. According to Vygotsky, learning occurs when a teacher or a more capable peer acts as a 'More Knowledgeable Other' (MKO), providing 'scaffolding' a support that is gradually withdrawn as the learner becomes more competent. This means that their needs, interests, learning pace, and prior knowledge are the starting points for pedagogical action. The teacher becomes a facilitator, a mediator, and a guide. The role of the teacher as a facilitator in the CBA is precisely to design tasks within the students' ZPD and to provide the necessary scaffolding through questioning, modeling, and feedback. This role is to create rich and stimulating learning environments, to propose relevant problem-situations, and to support students (individually or in groups) in their problem-solving process.

This support fosters active learning. Students are encouraged to manipulate, explore, experiment, debate, and collaborate. Recommended methods include group work, projects, case studies, role-playing, and field trips. Error is no longer seen as a fault to be punished, but as a normal and constructive step in the learning process, an opportunity to understand and overcome an obstacle. This contrasts sharply with the traditional model where the teacher lectures from the front, assuming all students are at the same level. The CBA's emphasis on group work also aligns with Vygotsky's belief that cognitive functions originate in social interaction.

Finally, the integration of competences is a guiding principle. Unlike the OBA which juxtaposed knowledge and skills, the CBA aims for the student to learn to mobilize an integrated set of resources (knowledge, skills, attitudes) to accomplish a complex task (the problem-situation). For

example, to create a short presentation on protecting the local forest, a student must mobilize skills in biology (the role of trees), geography (location), language (researching information, writing, oral presentation), and civic attitudes (respect for the environment). This holistic approach aims to break down the barriers between disciplines to make learning more meaningful and functional (Tardif, 2006).

2.3.2. Teacher training and support

No curriculum reform can succeed without increased buy-in and competence from teachers. The transition to CBA requires them to unlearn decades of transmissive practices to adopt a new role as a facilitator. Teacher training is therefore the strategic lever for implementation. In Cameroon, training was primarily deployed using a cascade model: national trainers train regional trainers, who in turn train inspectors and pedagogical advisors, who are finally tasked with training teachers in the field (MINEDUB, 2018).

However, this model has well-documented limitations. The loss of information at each level of the cascade, the brevity of the training sessions (often only a few days), and their often overly theoretical nature are recurring criticisms (Ndjock & Mvesso, 2020). Teachers receive an introduction to CBA concepts but often lack practical and continuous support to help them overcome difficulties encountered in the classroom.

Teacher support through resource availability is another critical factor. The implementation of CBA requires appropriate teaching materials: clear pedagogical guides for teachers, student textbooks designed around problem-situations, and manipulative materials (in science, mathematics, etc.). However, on the ground, the scarcity of these resources is stark. Many schools, especially in rural areas, lack textbooks (the student-to-textbook ratio is very high), and teachers have little material to implement active pedagogy (Tamo, 2021). This lack of material resources often forces even well-intentioned teachers to fall back on frontal and theoretical practices for lack of a better alternative.

2.3.3. Assessment

Assessment is one of the most revolutionary and complex aspects of the CBA. It breaks with the logic of normative assessment, which compares students to each other based on a numerical grade. The assessment of competences is criterion-referenced: it aims to determine

whether or not a student has mastered a given competence, based on clear and predefined success criteria. Three types of assessment are distinguished:

Diagnostic assessment: This type of assessment verifies what the learner already knows and it is used to improve on the learner's achievement. Hence, each time we have to embark on a learning and teaching experience, we must always try to find out learners' level of competence and/or knowledge, skills and attitudes about the new material. This helps the teacher develop strategies and activities that can be used to facilitate learning.

Formative assessment: This type of assessment keeps the learners in permanent interaction with the curriculum during the teaching-learning process. This takes place throughout the learning process. It is designed to keep track of learners' learning achievements. Their response to this type of interaction equally helps the curriculum user (the teacher) to provide feedback to both the learner and the parents. Its purpose is to regulate learning by identifying students' difficulties in order to provide immediate remediation. The teacher observes, questions, and analyzes student work to adjust their teaching.

Summative assessment: It is carried out periodically to show the level of attainment of expected learning outcomes at the end of the term, year, level or cycle. This occurs at the end of a learning period (term, year, cycle) to certify the degree of mastery of a competence. It is usually conducted through a complex and novel assessment situation, which must verify if the student is able to mobilize their learning in an integrated manner. It is a more judgmental kind of assessment. Whatever the case, summative assessment must not always be standardized tests. There is need for a variation in the use of assessment instruments.

Assessment and grading in Cameroon primary schools system

Assessment is the process of passing judgements on learners' knowledge, skills and attitudes with the sole aim of making decisions about their education. According to Cameroon primary school curriculum (2018), it is an integral part of the teaching-learning process in the Primary School and constitutes part of the curriculum. Assessment is a means of objectively informing parents, guardians and policy makers on learners' progress in school. Diverse tools should be used to collect information about the learner in order to moderate and increase learners' chances of learning from one another. Nevertheless, learners must be assessed fairly and at the same time taking into

consideration that each learner has their learning styles. Consequently, all the learners may not always be at the same level of attaining the expected learner outcome. Assessment in primary schools in Cameroon can take three forms (oral, written, practical). There are many ways through which information can be gathered about learner's progress. This can be done through: observation checklists; learner's self-assessment; daily practical assignments; samples of learner's work; learner's willingness to participate and contribute in projects/conferencing; oral and written quizzes; portfolios; willingness to be involved in class and school activities. It is worth stating that formative and summative assessment should take into consideration knowledge, skills and attitudes as indicated on the "Expected Learning Outcomes" column of each subject.

Assessment of learning is recommended to be done six times a year, implying twice a term. This is in line with the sequential assessment policy previously in use in schools in Cameroon. The CBA assessment practices range from performance assessment, comprehensive assessment, self-assessment to diagnostic assessment, and formative as well as summative assessment with emphasis on diagnostic and formative assessments. A grading system was introduced in the academic year 2019/2020 wherein upon assessment; the students' performances are graded in four principal categories in context of CBA thus;

0 - 10 is labelled CNA (competence not acquired)
11 – 14 is labelled CBA (Competence being acquired)
15- 17 is labelled CA (Competences acquired)
18 – 20 is labelled A^+ indicating the learner's expertise in the said competence(s) evaluated.

Formative assessment is one of the key factors of CBA. This assessment takes the form of testing strategies put in place by to get feedback during a lesson in order to ensure that learners are actually learning. Besides, remedial lessons play a primordial role in the CBA assessment policy geared at taking slow learners to the same level like those that are smarter. This grading system seems to be violated by the assessment practices as most assessment tools and process may be invalid and without objectivity in most cases.

Reporting also changes. Instead of traditional report cards with grades, the system advocates for competency booklets that indicate the level of mastery for each key competence, often on a simple scale (e.g., Not Acquired, In Progress, Acquired). This system is more qualitative and provides more detailed information on a student's strengths and weaknesses. However, its implementation

is difficult. It requires teachers to have significant expertise in developing assessment criteria and tools, an expertise that is often lacking without adequate training (Paquay, 2010). Furthermore, it clashes with a deeply ingrained culture of grades among parents and students themselves.

2.3.4. Implementation Challenges

The implementation of the 2018 curriculum faces a series of systemic challenges that significantly hinder its potential.

- Infrastructure and overcrowded classrooms: Active learning and differentiated instruction are difficult to apply in classrooms with 80, 100, or even more than 120 students, a common reality in urban and peri-urban public schools. The lack of desks, space, and the noise level make group work nearly impossible.
- Lack of teaching materials: As previously mentioned, the absence of textbooks, guides, and manipulative materials is a major obstacle. Teachers are forced to improvise constantly, which is exhausting and inefficient.
- Teacher workload and motivation: The CBA is much more demanding on the teacher than transmissive pedagogy. It requires considerable preparation (designing problem-situations, preparing materials, planning for differentiation), as well as constant energy in the classroom to manage groups and support students. This increased workload, not accompanied by salary increases or improved working conditions, can lead to demotivation and passive resistance to the reform (Tamo, 2021).
- Administrative and inspection support: The role of school administration and the inspectorate is fundamental to support change. However, pedagogical inspectors are often themselves insufficiently trained in CBA and overloaded with administrative tasks. Their field visits are often perceived as punitive control rather than supportive coaching aimed at helping teachers improve their practices (Ndjock & Mvesso, 2020). This lack of institutional support leaves teachers very much alone in facing the challenges of the reform.

In conclusion, while the 2018 curriculum offers a modern and relevant vision for education, its implementation is an obstacle course. The gap between the ambitions of the prescribed curriculum and the realities of the enacted curriculum remains immense, conditioned by deep-seated structural and systemic factors.

2.4.Operational definition of variables and formulation of hypotheses

Based on the analysis of the curriculum and the challenges of its implementation, it is possible to formulate a conceptual framework for an empirical study. This framework relies on the definition of variables and the formulation of hypotheses that link the implementation of the curriculum to student learning outcomes.

2.4.1. Operational definition of variables

In a school discourses, the conception of the implementation refers to how the planned or officially designed new 2018 curriculum is translated by the teachers into lesson to be delivered to pupil's . This involves focusing the teaching learning system on the pupil's by methodically supporting them on construction of competences. A competence does not only mean abstract knowledge but knowing how to mobilise a set of resources in an integrated, appropriate and intentional manner in a given situation.

Here teaching is not the holder of knowledge but rather on learning. Emphasis is placed on what the pupils are expected to do. It implies the pupil's should acquire and apply the knowledge, skills, values and attitudes to solve situations they encounter in everyday life and across the globe. He ends up showing himself to be a problem solver to transfer the Cameroon economy and society into emergent economy by 2035.

The general research question of this study has been formulated thus: How does the implementation of the new 2018 curriculum influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI subdivision? For this, the study proposed as general hypothesis: the implementation of the new 2018 curriculum does influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI subdivision.

In the context of a research, the study aimed at evaluating the influence of the implementation of the new 2018 curriculum on the construction of individual and collective competences in numeracy and literacy in public primary school. To answer the previously formulated research question the general hypothesis put forward is as follows; « the implementation of the new 2018 curriculum has a significant influence on the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde (VI) sub-division »

This general hypothesis shows two variables:

- Independent variable (IV): the implementation of the new 2018 curriculum

- Dependent variable (DV): the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division

(i) Independent Variable: Implementation of the new 2018 curriculum

The independent variable refers to the variable that is manipulated or controlled by the researcher in order to observe it on the dependent variable. It is the variable that is hypothesized to have an impact on the outcome of the study. In our case, this variable cannot be treated as a monolithic block (implemented vs. not implemented). It is a complex variable that must be operationalized through several measurable indicators. These indicators allow for capturing the degree and quality of implementation in a given classroom.

Fullan (2016) provides a comprehensive framework for understanding the complex process of implementation. He distinguishes between the mere adoption of a new program and its actual use in practice. To the author, implementation is the process of putting an idea or an innovation into practice. It is a dynamic and developmental process, not a simple event. He famously articulated that change is a journey, not a blueprint. For Fullan (20216), effective implementation involves changes in practices, beliefs, and the use of new materials. It is a highly personal and social process, where individuals and groups grapple with the meaning and implications of a change.

Since the adoption of new curriculum is involved a change in the education system, Fullan (2016) posits a three-stage model for the change process:

- Initiation: this stage involves the decision to adopt a new innovation. It is influenced by factors such as the relevance and clarity of the proposed change, the presence of an advocate, and external pressure.
- Implementation: this is the heart of the change process, where the innovation is put into practice. The success of this stage depends on a variety of factors, including the characteristics of the innovation, the local context (school and community), and the capacity for change. This is what the present study lays on.

- Institutionalization (or Continuation): this final stage is reached when the new practice becomes an integrated and sustained part of the system.

A core tenet of Fullan's work is that "you can't mandate what matters". Deep, meaningful change cannot be forced from the top down. It requires building capacity, fostering collaboration, and creating a shared sense of purpose among those on the front lines of implementation means the teachers.

Concerning curriculum implementation specifically, it is the process of translating a new curriculum framework into classroom practice. It is about what teachers and students actually do in the classroom. Fullan (2016) emphasizes that curriculum implementation is not just about fidelity to a prescribed set of materials or guidelines. Instead, it is an adaptive process where teachers make sense of the new curriculum in their own contexts and for their own students. He identifies three key dimensions of curriculum implementation: the alteration of beliefs which involve the teachers' capacity building, the use of new teaching approaches or instructional delivery, and the use of new or revised materials related to the resources availability.

- **Teacher's capacity building**

According to Fullan (2016), this is the most profound level of change, where educators' underlying beliefs about teaching, learning, and the curriculum are challenged and transformed. Capacity is the quality that an individual possesses to be able to achieve something. It is the particularly physical, intellectual or professional power, someone has to accomplish something. This capacity is concretized and therefore verified in behaviour through production and performance. Approaches to the concept of capability still lack a sufficient theoretical framework because even if this concept has been used for a long time by education and work specialists too many gray areas persist. . Gillet (1991), capacity reflects the aptitude to do and succeed in something, and cannot be limited to repeating but involve initiative and understanding in theory (Gillet, 1991), the capacity to initiate an action generates a performance to operationalize a competence. For Jornaert, Lauwwers and Pesenti (1990), capacity denotes the qualities that allows a person to achieve or accomplish somethin

Deprez et al. (2021) define capacity building as the "process of developing and strengthening skills and instinctual abilities". Chukwu (2009) says it is the professional growth a teacher achieves as a result of gaining increased experience and examine his or her teaching systematically. He further

asserts that is a lifelong process and not a once-in-a-life time thing. Gimba (2010) sees it as "the development of the skills, knowledge and abilities needed by teachers in order to participate fully in the education sector". It is any effort made to improve the abilities, skills and expertise of educators. The European parliament distinguished between "capacity-building" (suggesting building something new) and capacity-development (building on existing skills and knowledge). Teacher capacity building is the process of developing and strengthening teacher's skills, knowledge, and abilities to improve their effectiveness in the classroom and entrance student learning out comes. This includes in-dept content knowledge, innovative pedagogical techniques professional ethics, and relevant experiences. Essentially, it's about empowering teachers to be more effective in their roles and achieve their professional goals.

The teacher's capacity building is related to the teacher's level of training and appropriation: Number of CBA training hours received, score on a knowledge test about CBA principles, self-assessment of their competence to implement the reform. Frequency of use of CBA pedagogical approaches: Percentage of class time devoted to group work and problem-solving, as opposed to lecturing.

- **Instructional delivery**

According to Fullan (2016), this refers to changes in instructional strategies and activities that are aligned with the pedagogical philosophy of the new curriculum. In the context of the 2018 Cameroonian curriculum, this would be the shift towards a competency-based approach (CBA). Instructional delivery as conceptualized by authors in 2021, refers to the methods and approaches used by educators to effectively convey information and felicitate learning. In essence is bridge between what educators want students to Bearn and how they actually learn it. It encompasses the way a teacher organizes and delivers content, interacts with students and employs various teaching techniques to achieve learning outcome. The goal is to ensure students understands the material and engage in meaningful learning experiences.

Quality of pedagogical alignment: The extent to which learning activities and assessments are built around relevant problem-situations, as recommended by the curriculum.

- **Resources availability**

In education, resource availability refers to the extent to which necessary material, facilities and personnels are accessible and available to support effective teaching and learning. Ibitoye (2007) defines resources as encompassing physical, human and financial resources that enhance teaching and learning. Owoko (2010) broaden the definition to include time for instruction and teacher training. Oyedeji (2013) focuses on the role of human resources in driving the education system. Niles & Harris bowlbey (2003) Adeoguin categories educational resources into human, material, physical, financial resources.

Fullan (2016) said said this involves the adoption of new textbooks, teaching guides, and other instructional resources associated with the new curriculum. Many studies identified a range of resources essential for education including physical resources. This refers to the infrastructure such as classroom libraries, laboratories and sport facilities that provide suitable environment for teaching and learning; Instructional materials encompasses physical item used in education such as textbooks, multimedia and digital resources that enhance learning

For the availability and use of teaching resources, this focus on student-to-textbook ratio, availability of a teacher's guide, frequency of use of teaching aids other than the blackboard. Human resources include qualified teachers, support staff and administration personnel while financial resources refer to the funding available for school operations, including salaries, supplies and equipment. The resources use into implementation of new curriculum also involve time and training and learning environment. The availability of sufficient time for teacher training and development are also considered crucial resources for the implementation of curriculum, as well as the overall atmosphere of the school, including physical layout, cleanliness, and safety, also contribute to resources availability.

- **Modality 1 :** teachers capacity building
    - Indicator 1 : Professional development
        - Indices : professional development content, training, skill enhancement
    - Indicator 2 : Classroom application
        - Indices: classroom environment and structure, CBA, classroom management.
    - Indicator 3 : Peer collaboration

Indices : implementation of peer collaboration activities, Development of collaborative skills, Perceptions of peer collaboration

- **Modality 2 :** instructional delivery

  Indicator 1 : lesson plan alignment

  Indices : Learning objectives, Lesson planning, Time management

  Indicator 2 :differentiated instruction

  Indices: Differentiated instruction-learning environment, differentiated instruction-process, Differentiated instruction-content.

  Indicator 3 :student engagement

  Indices :cognitive engagement, behavioural engagement, emotional engagement

- **Modality 3 :** resource availability

  Indicator 1 : Material availability

  Indices : Printed materials, Visual materials, Facilities

  Indicator 2 : Technology access

  Indices: Device/Internet access, Computer skills and confidence, Technology integration.

  Indicator 3 : Equitable distribution of resources

  Indices: Perception of resource distribution, Resource utilization, Resource management.

(ii) Dependent Variable: Construction of individual and collective competences

A dependent variable is the variable that changes as a result of the independent variable manipulation. It's the outcome you are interested in measuring, and it depends on your independent variable. In the context of our study it is; the construction of individual and collective competences in numeracy and literacy.

This variable represents the learning outcome targeted by the curriculum. It is measured by the students' ability to mobilize their learning to accomplish complex tasks. It can be broken down into several dimensions, particularly concerning numeracy and literacy:

- Construction of individual competence:

Score obtained by a student on a standardized test composed of novel problem-situations in literacy (e.g., reading a complex document and answering questions that require inference) and numeracy (e.g., solving a real-life problem requiring multiple calculation steps and reasoning).

- Construction of collective competence:

Assessed through the observation of a group task. Criteria could include the quality of communication among members, task distribution, and the ability to co-construct a solution.

- Modality 1 : construction of individual competence

  Indicator 1 : Academic competence

  Indices: Reading comprehension, Writing proficiency, Mathematical reasoning.

  Indicator 2 : Personal competences

  Indices: Time management and organization, Motivation.

- Modality 2 : construction of collective competence

  Indicator 1: Collaboration and share learning.

  Indices: Collaboration, Shared learning.

  Indicator 2: Problem-solving and critical thinking

  Indices: Problem-solving, Critical thinking

Table 7 : synoptic table of variables, modalities, indicators and indices

VARIABLE	MODALITY	INDICATOR	INDICE
INDEPENDENT VARIABLE	Teachers building capacity	Professional development	Professional development content, Training Skill enhancement
		Class room application	Classroom environment and structure CBA Classroom management
		Peer collaboration	Implementation of peer collaboration activities Development of collaborative skills, Perceptions of peer collaboration
	Instructional delivery	Lesson plan alignment	Learning objectives, Lesson planning, Time management
		Differentiated instruction	Differentiated instruction-content, Differentiated instruction-process

			Differentiated instruction-learning environment.
		Student engagement	Cognitive engagement Behavioural engagement Emotional engagement
	Resource availability	Material availability	Printed materials, Visual materials Facilities
		Technology access	Device/Internet access, computer skills and confidence, Technology integration
		Equitable distribution of resources	Perception of resource distribution, Resource utilization, Resource management.
DEPENDENT VARIABLE	**C**onstruction of individual competence	Academic competence	Reading comprehension, Writing proficiency, Mathematical reasoning.
		Personal competences	Time management and organization Motivation.
	Construction of collective competence	Collaboration and share learning.	Collaboration, Shared learning.
		Problem-solving and critical thinking	Problem-solving , Critical thinking

Source: researcher, 2025.

2.3.2. Formulation of Hypotheses

Hypotheses formalise the expected relationship between the independent and dependent variables. They are based on curriculum theory and the preceding analyses.

General Hypothesis (GH): A high-quality implementation of the new 2018 curriculum, characterized by the effective teachers capacity building, the instructional delivery and the resources availability, positively and significantly influences the construction of individual and collective competences in literacy and numeracy among public primary school students in Yaounde VI subdivision.

This general hypothesis has been broken down into specific (or operational) hypotheses that test more precise aspects of this relationship:

- **Specific Hypothesis 1 (SH1):** the teacher's capacity building influences positively the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.
- **Specific Hypothesis 2 (SH2):** the instructional delivery is a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.
- **Specific Hypothesis 3 (SH3):** the resource availability influences the construction of individual and collective competences in literacy and numeracy in public primary schools Yaoundé VI sub-division.

These hypotheses provide a clear framework for data collection and analysis, allowing for the empirical testing of the impact of the 2018 curriculum reform on the ground.

Table 8 : synoptic table of the study

Theme	Research questions	Research objectives	Research hypotheses	Variables of study	Indicators
Implementation of the new 2018 curriculum and construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division	**RQ:** How does the implementation of the new 2018 curriculum influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI subdivision?	**GO:** To investigate how the implementation of the new 2018 curriculum affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division.	**GH:** A high-quality implementation of the new 2018 curriculum, characterized by the effective teacher's capacity building, the instructional delivery and the resources availability, influences the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.	**IV :** implementation of the new 2018 curriculum **DV:** construction of individual and collective competences in literacy and numeracy among public primary school students in Yaounde VI sub-division.	**Teacher's capacity building** **Instructional delivery** **Resources availability** **C**onstruction of individual competence Construction of collective competence
	RQ1: How does the teacher's capacity building influence the construction of individual and collective competences in numeracy and literacy in public primary schools in public primary schools in Yaounde VI sub-division?	**SO1:** To examine how the teacher's capacity building affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division.	**SH1**: the teacher's capacity building affects positively the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.	**IV1** : the teacher's capacity building **DV:** construction of individual and collective competences in literacy and numeracy among public primary school students in Yaoundé VI sub-division.	Professional development Class room application Peer collaboration **C**onstruction of individual competence Construction of collective competence
	RQ2: How does the instructional delivery influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division?	**SO2:** To determine how the instructional delivery affect the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division.	**SH2:** the instructional delivery is a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.	IV2 : the instructional delivery **DV:** construction of individual and collective competences in literacy and numeracy among public primary school students in Yaoundé VI sub-division.	Lesson plan alignment Differentiated instruction Student engagement **C**onstruction of individual competence Construction of collective competence
	RQ3: How does the resource availability influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division?	**SO3**: To examine how the resource availability affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division.	**SH3:** the resource availability affects the construction of individual and collective competences in literacy and numeracy in public primary school in Yaoundé VI sub-division.	IV3: the resource availability **DV:** construction of individual and collective competences in literacy and numeracy among public primary school students in Yaounde VI sub-division.	Material availability Technology access Equitable distribution of resources **C**onstruction of individual competence Construction of collective competence

Source: researcher, 2025.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0. Introduction

To investigate the influence of the implementation of the new 2018 curriculum on the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde (VI) subdivision, this chapter presents and discusses the method and procedures in the study. It treats the following elements; recall and precision of the research question, hypothesis of the study, research type, area of study, population of the study, sample and sampling technique, research instrument, presentation of research instrument, administration of research instrument, validity and reliability of research instrument, data analysis technique and ethical considerations.

3.1.Recall of the research hypotheses

This study includes a general hypothesis understood as a statement in which an immediate response is given to the general research question previously posed and research hypothesis which will be formulated after the operational definition of variables.

3.1.1. General research hypothesis

This research is based on the general hypothesis that : A high-quality implementation of the new 2018 curriculum, characterized by the effective teachers capacity building, the instructional delivery and the resources availability, positively and significantly influences the construction of individual and collective competences in literacy and numeracy in public primary school in Yaoundé VI sub-division.

3.1.2. Specific research hypotheses

The operationalization of variables of the general hypothesis has allowed us to formulate the following specific research hypotheses.

- **Specific Hypothesis 1 (SH1):** the teacher's capacity building influences positively the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.
- **Specific Hypothesis 2 (SH2):** the instructional delivery is a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.

- **Specific Hypothesis 3 (SH3):** the resource availability influences the construction of individual and collective competences in literacy and numeracy in public primary schools Yaounde VI sub-division.

3.2.Type of research

In social and educational sciences, there exists several types of research. The choice of a research type largely depends on the knowledge of the researcher, the nature of the topic, the problem the researcher wants to address, the objective and the interest of the study. The researcher can decide to carry out a descriptive study, a historical study, an exploratory study, an explanatory study, an experimental study, a fundamental study, or even an action research. Considering the aim and objective of the present study, the research opted for an experimental research. The choice of the experimental research as the research type largely depends on the fact that the researcher intends to have an in-depth understanding of the phenomenon thereby looking at the impact of the implementation of the new primary school curriculum on pupil`s acquisition of competences in some public primary schools in Yaoundé VI sub division.

According to Creswell (2013) they are basically three types of research methods or approaches. The choice of a research method or approach must be based on the researcher`s personal experiences, which necessitates a certain level of familiarity with at least of the research approaches. That is; quantitative, qualitative and mixed research methods or approaches. Basing on the purpose of this study, the researcher opted for the quantitative approach as the research method for the study. The reason for choosing the quantitative approach were many. In the first place, the fact that the researcher had to deal with a large number of the studied population explains why the quantitative approach was adopted for this study. Also, in order to ensure the generalization of the results of the findings on the general population, the quantitative approach was chosen for this study.

3.3. Research design

The research design refers to the overall strategy that a researcher chooses to integrate the different components of the study in a coherent and logical way, that effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data, (Thakur, 2021). This study adopts survey research design. A survey looks at the individual, groups, institutions, methods and materials to describe, compare, contrast, classify, analyse and interpret the entities and events in the field, (Cohen et al, 2007). The survey is employed in this study to enable the researcher study a large population and have a greater

statistical power. Moreover, it gives the researcher the ability to collect a large amount of information and having the availability of validated models.

The type of survey used in this study is descriptive. The descriptive survey is chosen because it enables the researcher to collect data at a particular point in time to describe the nature of the existing phenomenon; identify standards against which this existing phenomenon can be compared. It also helps us to scan a wide field of issues, population, institutions and programs to describe or measure any generalized features. It further helps us to assure objectivity and generalization of findings.

3.4. Area of the study

In every research, it is always essential to determine the area of the study. This is because a research cannot be carried out everywhere. They are certain limitations which always require the researcher to define the area of the study. As such, this study is carried out in the center region of Cameroon specifically in public primary schools in Yaoundé (VI) sub-division. Yaoundé (VI) sub-division is located in Mfoundi division in the Centre region of Cameroon. Its Capital is Biyem-Assi. It has 17 districts and two markets and the main economic activities being subsistence farming (cultivation of crops and rearing of animals). Yaoundé (VI) covers an area of 22.2km² and has a population of 268,428 inhabitants with a density of 12,091 inhabitants per km². The researcher picked on this location because she resides there and therefore, would encounter minimal challenges when collecting data. Singleton (1993) observes that the ideal setting for any study, is one where the researcher has interest in, easily accessible and one that allows the researcher immediate support with the respondents. This area was chosen for this study because it harbors a good number of primary schools. Cost considerations were made in line with the fact that a study of this type requires primary data and its collection requires a lot in terms of time and financial cost. The ease with which information could be achieved for the study in this area was not equally left out and the closeness of the researcher to the area was amongst the determinants of the choices of the study area.

In Yaounde (VI) sub-division, there are 12 public primary schools. It composed of 7 two shift system schools and 5 one shift system school. This is shown in the table below.

Table 9: Presentation of public primary schools in Yaoundé (VI) subdivision

School category	Names of school
Two shift system school	GBPS Biyem-Assi SIC IA
	GBPS Biyem-Assi SIC IB
	GBPS Biyem-Assi SIC IIA1
	GBPS Biyem-Assi SIC IIA2
	GBPS Biyem-Assi SIC IIB
	GEPS Etoug-ebe Group I
	GEPS Etoug-ebe Group II
One shift system school	GBPS Mvog-Betsi Group IA
	GBPS Mvog-Betsi Group IB
	GBPS Mvog-Betsi Group IIA
	GBPS Mvog-Betsi Group IIB
	GBPS Mewolou

Source: researcher, 2025.

3.5. Population of study

According to Shukla, (2020), research population is a set of all the unites (people, events, things) that possess variable characteristics under study and for which the findings of the research can be generalized. A population determines the limit within which the research findings are applicable. The population of this study is all stakeholders of state primary schools in Yaoundé VI Municipality. Stakeholders here are principally the divisional delegate, the pedagogic inspectors, head teachers, personnel, the teachers, pupils and parents who interact with the schools in one way or the other. We used these thresholds because they are involved in the process of the implementation of new curriculum and pupils' competence construction and have the required insight needed to examine the prevailing phenomenon. This study divides a research population into target population, accessible population and the sample.

3.5.1. Target population

The target population refers to a group of people or objects which forms the subject of a study, (Ndjama, 2020). The target population of the study is made up of all the teachers from the 12 public primary schools in Yaoundé (VI) municipality. It composes of 7 two system schools with a population of 88 class teachers and 5 one shift system school with a population

of 50 class teachers given a total of 138 respondents. The selection criteria are that these schools are the most populated in number of pupils, bilingual and incidentally, could be about 80% of the population of the primary schools in that municipality. Generally, the targeted population possesses the same characteristics like the general population of the study. Since we could not be able to meet with each of the participants in this target group because of differences in schedules, unavailability and unwillingness to participate, an accessible population was drawn from the targeted population so as to facilitate the data collection process to the researcher.

3.5.2. Accessible population

According to Onen (2020), accessible population refers to the portion of the target population to which the researcher has reasonable access and from which sample can be drawn. It could be that portion of the population to which the researcher has reasonable access, may be a subset of the target population. The accessible population of the study was made up of class 5 & 6 teachers of the stated primary schools.

We used the teachers of these classes because they were available in school at the same time, willing to participate and the teachers had been applying the new 2018 curriculum for at least three years. Also, the choice of the teachers of class five and six in the selected public primary schools to participate in this study was simply because they are the ones in charge of implementing the new primary school curriculum. Equally, teachers in all the educational systems are at the center of knowledge production and the performance of pupils largely depends on them. This is why only teachers precisely those of class five and six were selected for this study because they were seen as person`s resource.

3.6. Sample and sampling technique

A sample is the representation of the general, the targeted and the accessible population on which a study is conducted. According to Merriam (2009) in a research work, they are a number of places to be visited, a number of people to be interviewed and a number of facts or events to be observed. So defining the sample size in a study is vital for the success of the study. Sampling techniques on the other hand refers to the techniques used in the selection of the participants in a study. The researcher can use the probability sampling techniques or the non-probability sampling techniques.

3.6.1. Sampling technique

To obtain the study population, the non-probability sampling was applied, precisely purposive sampling. Purposive sampling (also known as Judgmental or expert sampling) is a sampling technique in which researchers rely on their own judgment when choosing members of the population to participate in the study (Foley, 2018). Participants are chosen deliberately, not randomly, to align with the specific study objectives. This method is suitable for small populations with a clear research purpose, allowing the researcher to target individuals with specific attributes relevant to the study. The idea behind purposive sampling is to select cases, individuals, or communities that serve as the dataset from which meaningful information pertaining to the research question can be derived.

A purposive sampling is considered necessary in this situation because it allows for the selection of participants who most relevant to the research question. This targeted approach ensures that the data collected is rich and directly pertinent to the study's objectives, leading to more meaningful and focused findings. Since this method often involves selecting participants with specific experiences or knowledge, it facilitates the collection of in-depth information. This method can be cost effective because it focuses efforts on specific individuals or cases. It results in efficient utilization of resources, which reduces costs associated with data collection and analysis.

For this research, purposive or judgmental sampling is suitable because the object of the study is the construction of individual and collective competences in literacy and numeracy in public primary schools. Since, it at the end of primary school that competence in literacy and numeracy used to be measured by standard examination at national level with FSLC/CEP and PAREC, and at international level with PASEC. So pupils of class Six and CM2 are concerned with those examination even those of Class Five/CM1 since some of them use to write certification at that level. According to this, the choice of teachers holding Class Five/CM1 and Class Six/CM2 is suitable for this research.

3.6.2. Sample

Onen (2020), opined that a sample is the selected elements (people or objects) procedurally chosen for participation in a study to represent the target or accessible population). Hence it is the reduced number of teachers and pupils from the accessible population for the current study. In this study, all the teachers holding Class5/CM1 and Class6/CM2 in public primary schools in Yaoundé VI sub-division are part of the sample

As such, considering the fact that our accessible population was in total 60 participants, both male and female, the researcher therefore chooses to work will all the accessible population. This was because the size of the accessible population was not all that large. Equally, the fact that the researcher wanted to work with a considerable number of participants so as to facilitate the generalization of the results explains why all the 60 participants of the accessible population were selected as our sample.

Table 10: Presentation of the sample size of the study

Name of the schools	Participants	Effective participants
GBPS Biyem-Assi SICIA	6	5
GBPS Biyem-Assi SICIB	4	4
GBPS Biyem-Assi SICIIA$_1$	5	5
GBPS Biyem-Assi SICIIA$_2$	5	5
GBPS Biyem-Assi SICIIB	5	4
GEPS Etoug-Ebe Group I	6	4
GEPS Etoug-Ebe Group II	7	5
GBPS Mvog-Betsi Group IA	5	4
GBPS Mvog-Betsi Group IB	4	4
GBPS Mvog-Betsi Group IIA	4	4
GBPS Mvog-Betsi Group IIB	3	3
GBPS Mewolu	6	4
Total	**60**	**51**

Source: researcher, 2025.

The table above presents the sample size of the study. Column one is meant for the schools, column two is meant for the participants, both male and female, which amounts to 60 participants and column three is meant for the effective participants, both male and female which amounts to 51 participants in total. In all, the researcher administered 60 questionnaires to the participants and only 51 came back completed while 2 were blank and 7 were incomplete.

3.7. Data collection instrument

Every research project has as goal to gain knowledge. To arrive at this, investigations are to be made between variables. Data collection refers to a process which consists of gathering data

on a particular topic with the aim of making judgements and drawing conclusions at the end of the study. Data collection process is an integral part of research. This is because a research cannot conduct a study especially in the educational sciences without carrying out the fieldwork. This entails that the researcher, from the beginning, constructs instruments of data collection. Thus, they exist different types of data collection instruments that can be used by a researcher depending on the type and method or approach of research. In all, depending on the nature of the research, a researcher can use a questionnaire, interview guides, observation guides and even checklists to collect data. Hopkins (1998) holds that in educational settings, the purpose served by research instruments can be classified into four categories;

- The research instrument should provide a means of feedback to the instructor and the students. This helps the instructor to provide more appropriate guidance for individual students.
- It is used for research and evaluation. That is, tests are necessary to determine whether an innovative program is better than the conventional one in facilitating the attainment of specific curricular objectives.
- The instrument is used for guidance functions. That is, diagnosing an individual's aptitude and ability.
- It is also used for the administrative process that is, to facilitate better classification and placement decisions for instance, the groupings of children by their level.

Since it is complicated to measure directly, it is necessary to use indicators for our investigations. Considering the aim and objective of this study, a questionnaire was adopted as instrument and tool of data collection. A questionnaire is a quantitative data collection instrument used mostly A questionnaire according to Oxford Advanced Learners Dictionary (10th Edition 2022) is a written list of questions that are answered by number of people so that information can be collected from answers. For Mcleod (2018), it is a set of uniform questions, known as items and follows a static structure for the purpose of gathering individual data on one or more particular areas.

A questionnaire was use in this study because it can reach a large number of respondents within a short time; it gives the respondents adequate time to respond to the items, it also offers a sense of security and confidentially to the respondents and lastly it tends to be objective since there is no bias resulting from the personal characteristics. Mugenda and Mugenda (2003) observes that the use of questionnaire is a popular method for data collection in education because of the

relative ease and cost effectiveness with which they are constructed and administered to large samples.

3.7.1. Presentation of research questionnaire

This study used a self-designed questionnaire to collect quantitative data from closed-ended questions. The questionnaire was design to meet the demands of the research questions underpinning this study. The tool was chosen for simple reason that it create room for the respondents (teachers) to express their opinions on the impact of the implementation of the new 2018 curriculum on the construction of individual and collective competences in numeracy and literacy, in public primary school in Yaounde VI sub-division. The questionnaire was divided into four main parts.

- The first part, known as the introductory part focuses on the presentation of the researcher, the institution of the researcher, the objective of the study, and informed consent of the participants. This has to do with the confidentiality and anonymity of the respondent response and identity.
- The second part of the questionnaire focuses on the socio-demographic information about the respondents such age, gender, teacher diploma, teacher experience and class taught. Five (05) items were designed at this level which ranges from Q1-Q5.
- The third part of the questionnaire is reserved to the independent variable. Here, all the modalities which were gotten as the result of the operationalization are explored. This part is sub-divided into three parts; ten (10) items were designed to test the effect of teachers' capacity building on the construction of individual and collective competences in literacy and numeracy which ranges from Q1.1-Q1.10. Regarding the instructional delivery, a total of nine (09) items were designed to measure it, which ranges from Q2.1-Q2.9. For the last sub part under the independent variable a total of ten (10) items also were designed to test the influence of the resources availability, with questions ranging from Q3.1-Q3.10.
- The fourth part of the questionnaire is basically on the dependent variable. Here the researcher designed a total of nine (09) items to test the rate of construction of individual and collective competence in numeracy and literacy in public primary schools. This constitution last part of the questionnaires and items ranges from Q4.1-Q4.9.

In all a total of forty three (43) items were designed to measure the influence of the implementation of the new 2018 on the construction of individual and collective competences in public primary schools in Yaounde VI sub-division.

Table 11: Presentation of variables and corresponding items on the questionnaire

Variables	Items
Socio-demographic characteristics	1-5
Teachers capacity building	Q1.1-Q1.10
Instructional delivery	Q2.1 – Q2.9
Resource availability	Q3.1 – Q3.10
Construction of individual and collective competences in literacy and numeracy in public primary schools	Q4.1 – Q4.9

Source: Researcher, 2025.

The questionnaire was constructed basing on the linkert scale. The scaling of the statements ranges from strongly agree (SA), Agree (A), Neutral (N), Disagree (D) and strongly disagree (SD). The weighting of the questionnaire ranges from 1-5 as seen below;

- Strongly Agree = SA.
- Agree = A;
- Neutral = N ;
- Disagree = D;
- Strongly Disagree = SD;

3.7.2. Validity and reliability of research instrument

Validity and reliability are two of the criteria that contribute to the quality of the research instrument. Validity is often defined as the extent to which an instrument measures what it asserts to measure (Blumbergetal, 2005). It is the degree to which the results are truthful. For the sake of this study, the researcher proceeded by the content and face validity of the research instrument.

Face validity is the extent to which a tool appears to appear what it is supposed to measure. In this light, the researcher after constructing the questionnaire, they were presented to Ph. D students and research specialists in the department of curriculum and evaluation to cross examine the structure and number of items. They made some respective corrections. Three were then taken to the supervisor for scrutinized it, reconstructed some items and together with the researcher confirm that the tool is well structured and fit for the purpose. In the other hands, content validity is to know if the questions match with the subject matter. That is asking questions on all the indicators. (Egbe, 2018). All questions were constructed following the subject matter and all indicators had almost equal representation in the questionnaire. They

were given to the supervisor to verify if the various components of the study are covered. We used the expert judgemental test to measure the content validity of the tool.

According to Crewell (2014), reliability refers to the consistency of a score. That is regardless of who performs the measurement, and the occasion and condition under which measurement was carried out, the results produced by the measuring instrument is consistent (or comparably consistent) (Mohajan, 2017). In order to test the reliability of the research instrument in the present study, a pilot study was conducted with the aim of correcting and adjusting the questionnaire to meet the target purpose of the research.

A pilot study is "a small-scale study conducted before collecting data for the actual study and can be conducted in qualitative, quantitative or mixed method" (Crewell, 2012:307). A pilot study is one of the important stages in a research project and is conducted to identify potential problem areas and deficiencies in the research instruments and protocol prior to implementation during full study. It can also help members of the research team to become familiar with the procedures in the protocol, and can help them decide between two competing study methods, such as using interviews other than a self-administered questionnaire. The pilot study can reveal the ambiguity, and poorly elaborated questions. Questions that are not understood and unclear can indicate whether the instructions to the respondents are clear. The outcome of this pilot study enabled the researcher to eliminate and refine certain items in the questionnaire.

A pilot test was carried out by the researcher using teachers of class four, five and six of public primary school in Yaoundé III sub-division. A total of 27 teachers were selected to take part in the pilot study. The researcher obtained permission through an attestation of research from the head of department and the Dean of the faculty before going to the field. These teachers were chosen because they have nearly the same characteristics like the teachers in the sample.

To determine the reliability of the instrument, the Cronbach's Alpha score was referred. Based on the Rasch measurement model approach, the acceptable Cronbach's Alpha value of its reliability is between (0.71-0.99) (best level) as in table 4 (Bond & Fox, 2007). Less than 0.5, items need to be drop; between 0.5 -0.6, items need to be revised; between 0.6-0.7, items are acceptable; between 0.7-0.8, items are good and acceptable; more than 0.8, the questionnaire is excellent and effective with a high degree of consistency

After analysis using SPSS (version 20), the result reveals the alpha Cronbach of 0.84, which is very strong. This means that our instrument of data collection is valid.

Table 12 : Reliability Statistics

Variables	Cronbach's Alpha
Teacher's capacity building	0.87
Instructional delivery	0.91
Resources availability	0.78
Construction of individual and collective competences in literacy and numeracy in public primary schools	0.79
Overall questionnaire	0.84

Source: the researcher, 2025.

The table above shows the results of the pilot study conducted by the researcher in November 2024 to test the reliability of the data collection instrument. To do this, the researcher chooses a smaller size population but having the same characteristics as the sample population to conduct the pilot study. Here, the researcher selected teachers of class four, class five and class six in public primary schools in Yaoundé VI. A total of 13 teachers were selected to take part in the pilot study. After analysis using SPSS (version 20), the result reveals the alpha Cronbach' coefficient of 0.84, which is very strong. This means that our instrument of data collection is valid.

3.7.3. Administration of questionnaire

The researcher obtained the research authorization from the faculty of education of the University of Yaoundé I, and after the construction and the validity of the questionnaire, she went to the field means to the school's concern. At the school, she presented herself to the head teachers and presented the research authorization. From there the head teacher invited the teachers of the classes concern and get them into contact with the researcher. The researcher took schedules from the teachers on what time will the teachers can be free to participate in the study. This gave us the chance to administer the questionnaire to all our sample population. Also, in administering the questionnaire, we made used of the direct delivery mode of entering responses. Here, the teachers entered their responses by themselves since they understand better the various statements and they were no need for explanation.

3.8. Data analysis technique

This work applies the simple linear regression statistical analysis technique, which describes the extent to which the variables are interrelated. With simple linear regression, the data collected is used to verify if there is a relationship between two or more variables and the degree of the relationship. According to Amin (2005), a simple linear regression technique attempts to determine whether, and to what degree, a relationship exists between two or more quantifiable variables. The relationship can now be used to make predictions. The Statistical Package for Social Sciences (SPSS) version 20.0 was used for data analysis. Both inferential and Descriptive statistics were used to analyze the data collected from the field with the use of questionnaires. The descriptive data was applied using tables and chats. Concerning inferential statistics, the simple linear regression was used to test research hypotheses. We used the statistics in order to ascertain the effect of the implementation of new 2018 primary school curriculum on pupil`s construction of individual and collective competences in literacy and numeracy in public secondary schools in Yaoundé VI sub-division. The descriptive statistics give us the frequencies while inferential statistics determined the nature of relationships and magnitudes of the relationship between the two main research variables.

3.9. Ethical consideration

In contemporary education studies, all researchers are expected to apply, respect ethical principles and guidelines when research involve human subjects (international commission for world health organisation CIOMS 2002). This is because other researchers and those reviewing or supervising research would also find such helpful to themselves (Bailey, 1988). According to Gustafsson, Hermaren and Peterson (2002), areas of ethical concerns are lack of informed consent, plaque with inversion of privacy, deception and harm to participants. Ethical issues have to do with respect for lives, persons, human dignity, beneficence and justice. According to (Amin, 2005),

> Ethics refers to well based standards of right and wrong that prescribe what humans ought to do usually in terms of rights, obligations, benefits to society, fairness, or specific virtues… ethical standards support the virtue of honesty, compassion and loyalty and include standards relating to rights such as the right to life, the right to freedom from injury and then right to privacy (P.28).

This takes place in four different stages of the research process; the choice of the topic, data collection, analysis, interpretation and thesis writing. In this study, we ensure ethics in these four parts; in the research topic, all cautionary motives were taken into consideration, in order to avoid stumbling on a topic that could harm or put both the university community and research participants in any inconveniences. In order to achieve this, an explorative study was conducted to test the stability of the topic and to find out if it is sensitive to the scientific world or not.

At the level of data collection, the methodology, techniques and tools used were chosen with reasons; find further pretested during the explorative study before they are finally employed in the study. This was purposefully to avoid straying into research participant's privacy in one way or the other. While in the field, the main instrument that was used to give every informant their right is the informed consent form. This form was presented in two parts, part A presented the information about the research work and part B presented information on participant's engagement on the whole exercise. The document was handed to participants and some verbal explanations were made after which they fixed day and place for the survey according to their convenience. On data analysis, our tools did not give any gap for the participants to put their names, so all responses were anonymous.

3.10. Summary

The aim of this chapter was to present the methodology approach used to bring out this research. The researcher used quantitative approach using a questionnaire to conduct a survey among a sample of 51 public primary teachers in Yaoundé VI sub-division. The validity and reliability of the questionnaire were verified through a pretest and the calculation of the alpha oc Cronbach coefficient before it was administered to the sample. The questionnaires were administered and collected physically. After flat sorting, the data was analysed using Excel and SPSS 23.0. And the results of this analysis are presented in the next chapter.

CHAPTER FOUR: DATA ANALYSIS

4.0. Introduction

This chapter focuses on the analysis and presentation of the results of the findings. The findings are presented in both the descriptive and the inferential statistics. The descriptive statistics presents the findings in a tabular form comprising of frequencies and percentages. In the inferential, it focuses on the hypotheses testing through the simple linear regression analysis. In this chapter, we will present the differences between the respondents by considering the sample technics that have been used. It should be recalled that 55 people took part to our survey. The results will be presented in three parts. The first part here concerns the presentation of statistics related to socio demographic data, the second part presents the descriptive statistics related to the variables and the third part presents the inferential statistics with hypothesis testing with linear regression.

4.1. Descriptive statistics

In the descriptive part of the analysis and presentation, the study focuses on the presentation of the demographic data of the respondents, the presentation of the descriptive statistics on the independent variable as well as the presentation of descriptive statistics on the dependent variable. Here, the results are basically presented in tables. The objective here is to come out with the frequencies and percentages of the respondent`s responses.

4.1.1. Presentation of socio-demographic characteristics

This section focuses mainly on the presentation of the sample in relation to the socio-demographic characteristics of the respondents. As such, variables such as age, gender, educational level, class thought are presented in this section. The essence here is therefore to have a good mastering of our respondents and to be able to relate it to our findings.

- Frequency of respondents according to the gender

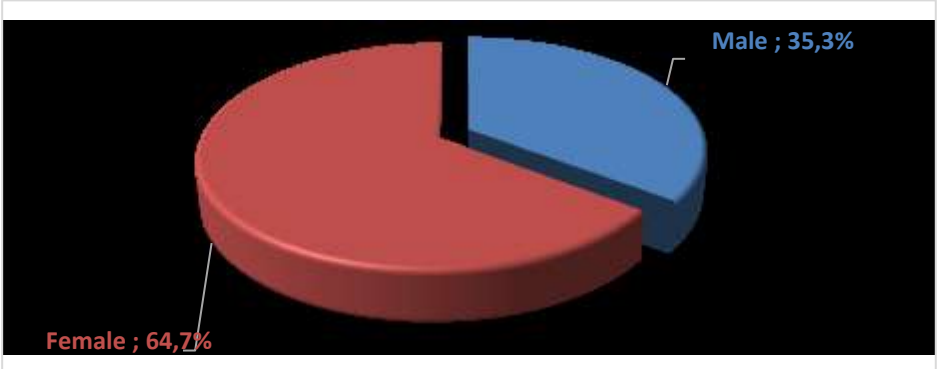

Figure 3 : Gender of the respondents
Source: researcher, from field data, 2025.

The figure x above shows that over the 51 respondents who participated to the survey, 18 were males (35.3%) and 33 were females (64.7%). It is therefore seen that a considerable percentage of the respondents were females. This simply translate that in the basic education or primary schools, we have more women than men. This may account for relative low salary or because of the presence of more beneficial offers.

- **Distribution of respondents according to their age**

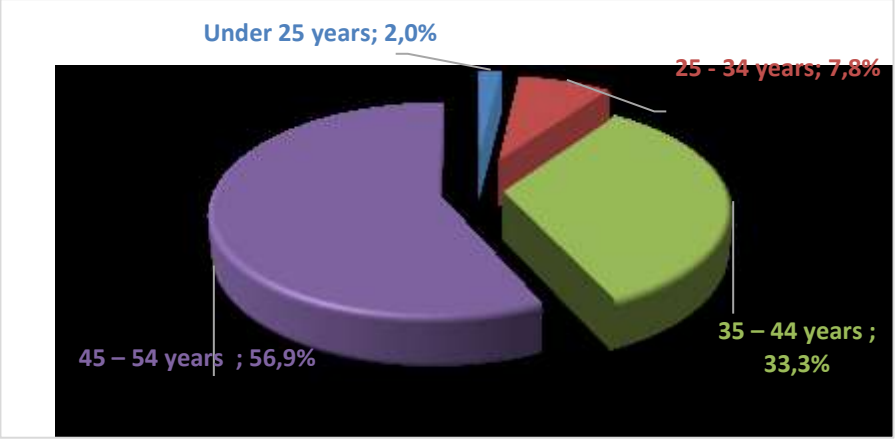

Figure 4 : Presentation of Respondents by Age

Source: *Data from the field 2023*

From the figure above, the results show that the majority of the sample that means 56.9% of the respondents are between 25 and 34 years this implies that they are people well place to give us the adequate information since they have been in the field for some time; they are followed by 33.3% of respondents who are between 35 to 44. Only 2.0% of respondents are under 25 years, and 7.8% are between 25 to 34 years old. The results show that there is not respondent above 54years.

- **Frequency of respondents according to teaching diploma**

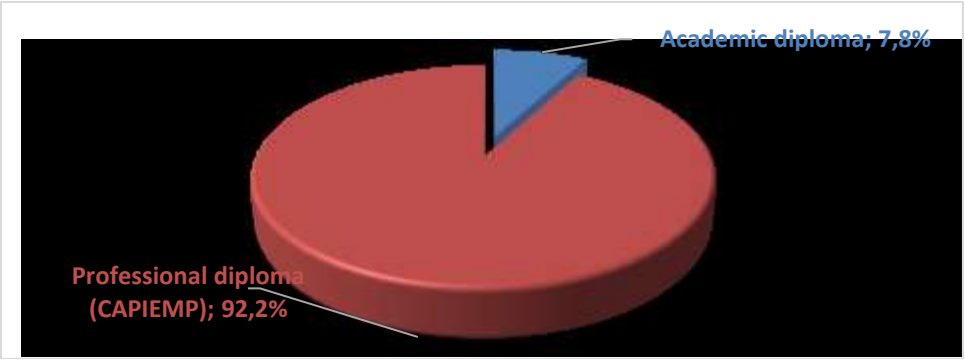

Figure 5: teaching diploma

Source: researcher, from field data, 2025.

The figure x above shows that over the 51 respondents who participated to the survey, only 4 were teaching with academic diploma (7.8%) and 44 have a professional diploma (CAPIEMP) (92.8%). It is therefore seen that a considerable percentage of the respondents were professional of teaching means they have been well trained to teaching-learning process. Therefore, they are ready to implement the curriculum put in place for education.

- **Distribution of respondents according to the class taught**

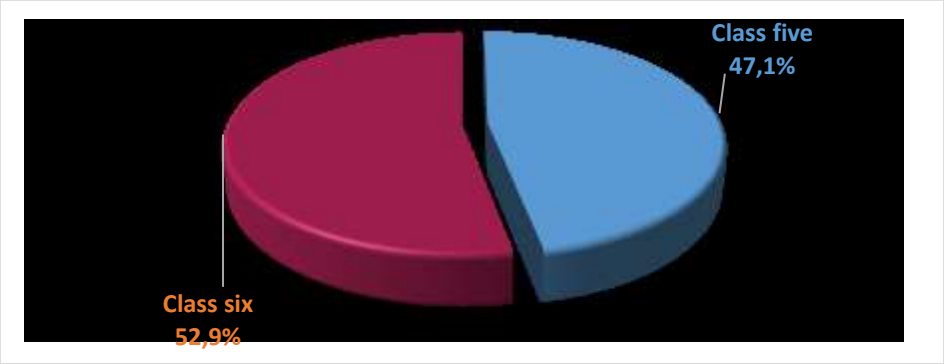

Figure 6: Classes taught by the respondents

Source: researcher, from field data, 2025.

This figure above shows that 52.9% of respondents are class five teachers, then 47.1% are class six students. These are levels in primary school that teaching need a high quality of knowledge and flexibility.

- **Distribution of respondents according to professional experience**

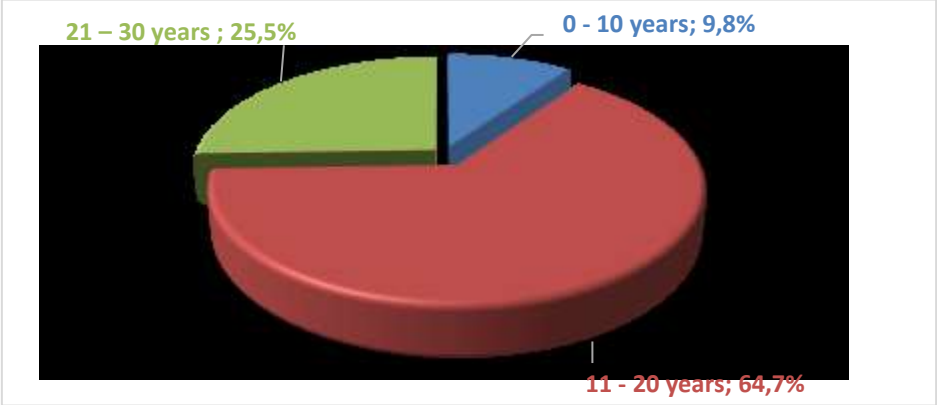

Figure 7 : professional experience

Source: researcher, from field data, 2025.

The results of the figure above show that 91.2% have more than 10 years of teaching experience, and only 9.8% are under 10 years of teaching experience. This shows that the

sample is mastering very well teaching methods, approaches that have using with the former and new curricula in primary school.

4.1.2. Presentation of data related to the independent variable of the study

This section aims to present the data according to the various modalities of the independent variable of the study which is the implementation of the new2018 curriculum. Those modalities are teacher's capacity building, instructional delivery and resources availability.

- **Presentation of data on the teacher's capacity building**

The data presented in the table below are on the teacher`s capacity building. The aim here is to examine how the teacher's capacity building affects the construction of individual and collective competences in numeracy and literacy in Yaoundé VI sub-division.

Table 13 : Descriptive statistics on teacher`s capacity building in the implementation of new2018 curriculum in public primary schools in the Yaoundé VI sub-division

Items	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std Deviation
The frequency of workshops and pedagogic seminars is sufficient for teachers to well understand mathematics and language syllabus design.	13 (25.5%)	23 (45.1%)	3 (5.9%)	11 (21.6%)	1 (2.0%)	2.29412	1.1366
I am adequately trained to teach all aspects of the new syllabus in mathematics and English language.	12 (24.0%)	27 (54.0%)	3 (6.0%)	7 (14.0%)	1 (2.0%)	2.16000	1.0174
Teacher's participation in training has improved their classroom teaching skills in Mathematics and English/French language.	17 (33.3%)	31 (60.8%)	2 (3.9%)	1 (2.0%)	/	1.74510	0.8005
Teachers feel more confident in applying what they learned during workshops and seminars activities.	19 (37.3%)	26 (51.0%)	3 (5.9%)	2 (3.9%)	1 (2.0%)	1.82353	0.8650
The size and layout of the classroom is suitable for teaching/learning process in reading comprehension.	9 (17.6%)	23 (45.1%)	6 (11.8%)	10 (19.6%)	3 (5.9%)	2.50980	1.1726
Teachers feel comfortable in using competence assessment methods in Mathematics and English/French language classes	5 (10.0%	31 (62.0%)	7 (14.0%)	7 (14.0%)	/	2.32000	0.8437

Teachers don't have time to waste in looking for students with disruptive behaviour in class.	3 (5.9%)	4 (7.8%)	6 (11.8%)	23 (45.1%)	14 (27.5%)	3.82000	1.1083
Teachers provide group activities (group projects. group discussion. assignments. debates) during mathematics and language learning process in the classroom.	13 (25.5%)	27 (52.9%)	4 (7.8%)	5 (9.8%)	2 (3.9%)	2.13725	1.0396
Teachers organise group work in mathematics and language classes for learners to develop important skills such as communication, teamwork and leadership.	16 (31.4%)	30 (58.8%)	1 (2.0%)	3 (5.9%)	1 (2.0%)	1.88235	0.8636
Teachers promote collaboration between students to enhance learning outcomes in mathematics and English/French Language.	16 (32.7%)	30 (61.2%)	1 (2.0%)	2 (4.1%)	/	1.77551	0.6851
Over all Mean	**51**					**2.224**	**0.9359**

Source: researcher, from field data, 2025.

Concerning this first modality of the implementation of new2018 curriculum in public primary school in Yaoundé VI sub-division, a considerable number of the respondents strongly agree and agree to whether to item Q1.3. "Teacher's participation in training has improved their classroom teaching skills in Mathematics and English/French language" (94.1%) or "I am adequately trained to teach all aspects of the new syllabus in mathematics and English language" (78.0%). To item Q1.5, "The size and layout of the classroom is suitable for teaching/learning process in reading comprehension", 62.7% agree or strongly with it. The results on the table above shows that the influence of teacher's capacity building is low (Mean =2.224. Standard Deviation =0.9359%). In all the statements which were designed to measure the influence of the teacher's capacity building on the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaounde VI subdivision, only one item (item Q1.7) has a mean above 2.5 which is the cut-off mean. This indicates that the respondents are disagree with that item. Therefore, the results show that teachers has built sufficient skills in teaching-learning process through which the can use to help pupils to improve their own competences both individual and collective in literacy and numeracy as it is shown in the table below.

Table 14: summary of descriptive statistics of the variable “teachers’ capacity building”

Modality	Frequency	Percentage
Strongly agree	13	25,5%
Agree	25	49,0%
Neutral	4	7,8%
Disagree	7	13,7%
Strongly disagree	2	3,9%
TOTAL	**51**	**100,0%**

Source: researcher, from field data, 2025.

- **Presentation of data on instructional delivery**

The table below presents the descriptive statistics related to the instructional delivery by teachers to perform their job. The aim here is determine how the instructional delivery affect the construction of individual and collective competences in numeracy and literacy in Yaoundé VI sub-division.

Table 15 : Descriptive statistics on the instructional delivery

Items	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std Deviation

The learning objectives in literature and mathematics are clearly outlined and understandable by teachers.	3 (6.0%)	27 (54.0%)	11 (22.0%)	8 (16.0%)	1 (2.0%)	2.5400	0.9082
Teachers can easily plan a lesson that's competence based in Mathematics and reading.	15 (29.4%)	31 (60.8%)	1 (2.0%)	4 (7.8%)	/	1.8824	0.7911
Teachers' lesson in mathematics and languages are well monitored before teaching.	13 (25.5%)	23 (45.1%)	6 (11.8%)	9 (17.6%)	/	2.2157	1.0259
Teachers provide different levels of content to meet the needs of different level of learners.	17 (34.0%)	25 (50.0%)	3 (6.0%)	5 (10.0%)	/	1.9200	0.8999
Teachers use a variety of instructional strategies to engage students in language and mathematics classes.	25 (50.0%)	20 (40.0%)	3 (6.0%)	2 (4.0%)	/	1.6400	0.7762
Teachers provide opportunities for students to take ownership of their learning.	12 (24.0%)	31 (62.0%)	3 (6.0%)	3 (6.0%)	1 (2.0%)	2.0000	0.8571
Teachers make sure that students understand the course material in mathematics and languages thoroughly.	9 (17.6%)	33 (64.7%)	7 (13.7%)	1 (2.0%)	1 (2.0%)	2.0588	0.7593
Teachers always make sure that students participate actively in class discussions and activities.	26 (51.0%)	22 (43.1%)	3 (5.9%)	/	/	1.5490	0.6104
Teachers make students to be happy while attended classes.	23 (45.1%)	23 45.1%)	4 (7.8%)	/	1 (2.0%)	1.6863	0.7872
Over all Mean	**51**					**1.9436**	**0.8239**

Source: researcher, from field data, 2025.

In the table above. a good number of respondents either agree or strongly agree to the statements. To the item Q2.8 which states that "Teachers always make sure that students participate actively in class discussions and activities". a total of 94.1% of the respondents either agree or

strongly agree A total of 60% of the respondents either agree or strongly agree to the item Q2.1. "The learning objectives in literature and mathematics are clearly outlined and understandable by teachers". The results on the table also show that the effect of didactic materials is positive (Mean =1.9436. Standard Deviation =0.8239). The overall mean of the ten items that were designed to measure that instructional delivery is less than 2.5 which is the cut-off mean. This indicates that instructional delivery in numeracy and literacy in primary public schools in Yaoundé VI sub-division is well done by teachers.

At the end, all the majority of respondents either agree or strongly agree to all the statement which were designed to determine the effect of instructional delivery on the construction of individual and collective competences in public primary schools in Yaoundé VI sub-division as it is shown in the table below.

Table 16: summary of descriptive statistics of the variable "instructional delivery"

Modality	Frequency	Percentage
Strongly agree	16	31,3%
Agree	26	51,0%
Neutral	5	9,8%
Disagree	3	5,9%
Strongly disagree	1	2,0%
TOTAL	**51**	**100,0%**

Source: researcher, from field data, 2025.

- **Presentation of the data on resources availability**

The table below presents the descriptive statistics related to the availability of resources for teachers to perform their work. The aim here is to examine how the resource availability affects the construction of individual and collective competences in numeracy and literacy in Yaoundé VI sub-division.

Table 17: Descriptive statistics on the resources availability

Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std Deviation
Q3.1 Textbooks and other printed materials are available for teachers and students for mathematics and language courses.	16 (31.4%)	25 (49.0%)	5 (9.8%)	3 (5.9%)	2 (3.9%)	2.0196	1.0098
Q3.2 Teacher guides are available for Mathematics and English Language.	5 (10.0%)	14 (28.0%)	(5 10.0%)	20 (40.0%)	6 (12.0%)	3.1600	1.2513
Q3.3 Teachers use charts and posters in the classroom for mathematics.	3 (6.1%)	29 (59.2%)	7 (14.3%)	10 (20.4%)	/	2.4898	0.8926
Q3.4 The school has a well-equipped library resource-center for teachers and students.	3 (5.9%)	9 (17.6%)	10 (19.6%)	10 (19.6%)	19 (37.3%)	3.6471	1.3088
Q3.5 Teachers have access to computers and internet for instructional purposes and digitalization of learning/teaching process.	3 (5.9%)	2 (3.9%)	5 (9.8%)	18 (35.3%)	23 (45.1%)	4.0980	1.1181
Q3.6 Teachers are confident using a computer for teaching numbers and language	3 (5.9%)	7 (13.7%)	11 (21.6%)	15 (29.4%)	15 (29.4%)	3.6275	1.2159
Q3.7 Teachers can effectively digitalise their teaching process in classroom.	1 (2.0%)	10 (19.6%)	12 (23.5%)	15 (29.4%)	13 (25.5%)	3.5686	1.1359
Q3.8 Teachers have sufficient resources for all subjects.	1 (2.0%)	5 (9.8%)	6 (11.8%)	22 (43.1%)	17 (33.3%)	3.9608	1.0190
Q3.9 The available resources (financial. human. materiel. infrastructure. etc.) are sufficient to meet the needs of children.	6 (12.0%)	4 (8.0%)	3 (6.0%)	23 (46.0%)	14 (28.0%)	3.7000	1.2976
Q3.10 Teachers are satisfied with the level of resources allocated by subject.	1 (2.0%)	9 (17.6%)	8 (15.7%)	21 (41.2%)	12 (23.5%)	3.6667	1.0893
Over all Mean	**51**					**3.3972**	**1.2921**

Source: researcher, from field data, 2025.

In the table above, a good number of respondents either disagree or strongly disagree to the statements to all the item except to the first (Q3.1) and third (Q3.3) items where they agreed

and strongly agreed for 80.4% and 65.3% respectively with the statements. A total of 80.4% of the respondents either disagree or strongly disagree to the fifth item (Q3.5) and among them, 45.1% of the respondents strongly disagree with the statement. We can mention in the table the considerable percentage of neutral position of respondents. In addition, the table above shows that the resources availability is not positive because the respondents are not unanimous as we can see with the mean and the standard deviation (Mean =3.3972. Standard Deviation =1.2921). The overall mean of the ten items that were designed to measure that influence is greater than 2.5 which is the cut-off mean. This indicates that teachers have not agreed with the resources availability in the teaching-learning process.

At the end, all the majority of respondents either disagree or strongly disagree to the statement which were designed to determine the effect of resources availability on the construction of individual and collective competences in public primary schools in Yaoundé VI sub-division as it is shown in the table below

Table 18: summary of descriptive statistics of the variable “resources availability”

Modality	Frequency	Percentage
Strongly agree	4	7,8%
Agree	12	23,5%
Neutral	7	13,7%
Disagree	16	31,4%
Strongly disagree	12	23,5%
TOTAL	**51**	**100,0%**

Source: researcher, from field data, 2025.

4.1.3. Presentation of data related to the dependent variable of the study

The table below presents the descriptive statistics on the dependent variable which is the construction of individual and collective competences in literacy and numeracy in public primary school in Yaoundé VI sub-division. The aim here is to determine whether pupils can develop competences both individually and collectively in literacy and numeracy after

Table 19: Descriptive statistics on the construction of individual and collectives competences in literacy and numeracy in public primary school

Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std Deviation

Q4.1 Learners demonstrate reading comprehension skills.	7 (13.7%)	36 (70.6%)	6 (11.8%)	2 (3.9%)	/	2.0588	0.6453
Q4.2 Learners can identify the main ideas and supporting details in a text	5 (9.8%)	35 (68.6%)	6 (11.8%)	5 (9.8%)	/	2.2157	0.7567
Q4.3 Learners can use correct grammar, spelling and punctuation in the production of simple sentences or texts	6 (11.8%)	30 (58.8%)	7 (13.7%)	8 (15.7%)	/	2.3333	0.8869
Q4.4 Learners actively collaborate to do their presentations, assignments and group projects together.	10 (19.6%)	32 (62.7%)	4 (7.8%)	3 (5.9%)	2 (3.9%)	2.1176	0.9305
Q4.5 Learners can follow and interpret oral instructions related to reading.	9 (17.6%)	32 (62.7%)	9 (17.6%)	1 (2.0%)	/	2.0392	0.6621
Q4.6 Learners are able to perform basic mathematical operations (addition, subtraction, multiplication, division)	20 (39.2%)	29 (56.9%)	1 (2.0%)	1 (2.0%)	/	1.6667	0.6218
Q4.7 Learners understand basic geometric concepts (shapes and measurements)	14 (27.5%)	32 (62.7%)	2 (3.9%)	3 (5.9%)	/	1.8824	0.7388
Q4.8 Learners demonstrate competence in solving problems involving numbers applied to everyday situations	7 (13.7%)	33 (64.7%)	6 (11.8%)	5 (9.8%)	/	2.1765	0.7926
Q4.9 Learners are able to reason and explain the process of solving a numeracy problem.	4 (2.0%)	37 (72.5%)	8 (15.7%)	4 (7.8%)	1 (2.0%)	2.3529	0.7436
Over all Mean	**55**					**2.0937**	**0.7805**

Source: researcher, from field data, 2025.

The table above presents the data related to the dependent variable of the study (Mean=2.0937. Standard Deviation =0.7805). All the nine items that were designed to measure the dependent variable have a mean lower than 2.5 which is the cut-off mean. This indicates that the respondents agree that the construction of competence by pupils is really. As it is revealed in the item Q4.6 “Learners are able to perform basic mathematical operations (addition, subtraction, multiplication, division)” where 96.1% of the respondents either strongly

agree or agree to the statement. The same phenomenon is observed in all the items whereby a percentage of agreement is up to 70% of the respondents who equally agree or strongly disagree to the statements. At the end, all the majority of respondents either agree or strongly agree to all the statement which were designed to determine the level of construction of individual and collective competences in public primary schools in Yaoundé VI sub-division as it is shown in the table below.

Table 20: summary of descriptive statistics of the dependent variable 'the construction of individual and collectives competences in literacy and numeracy in public primary school '

Modality	Frequency	Percentage
Strongly agree	9	17,6%
Agree	33	64,7%
Neutral	5	9,8%
Disagree	3	5,9%
Strongly disagree	1	2,0%
TOTAL	**51**	**100,0%**

Source: researcher, from field data, 2025.

4.2. Inferential statistics

In this section of the work, we are going to found out the correlation between independent variable and dependent variable. In other words, the aim in this section is to demonstrate if the independent variable of the study exerts an influence on the dependent variable. To do this, we will perform a hypothesis testing. The two variables of the study are the implementation of the new2018 curriculum and the construction of competences in literacy and numeracy in public primary schools.

All the tables below present the linear regression test that was carried out to understand the effect of the implementation of the implementation of the new2018 curriculum and the construction of competences in literacy and numeracy in public primary schools. The synthesis and interpretation of the data in these tables is presented as follows.

4.2.1. Verification of research hypothesis 1

To examine how the teacher's capacity building affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaounde VI sub-division, we first of all formulate the null and the alternative hypotheses.

H0: the teacher's capacity building does not influence positively the construction of individual and collective competences in in literacy and numeracy among public primary school students in Yaoundé VI.

Ha: the teacher's capacity building influences positively the construction of individual and collective competences in in literacy and numeracy among public primary school students in Yaoundé VI.

Table 21: Model summary for SH1

Model	R	R Square	Adjusted R Square	Std. Error of the estimation
1	.897[a]	.804	.800	.3414

a. Predicted values: (constant), Capacity Building Mean

Source: researcher, from field data, 2025.

To this first hypothesis, the result explains that the teachers' capacity building (IV) influences by **80.4**% the construction of individual and collective competences in public primary schools according to teachers in Yaoundé VI sub-division (DV) is by, as represented by the **R square** in the table above, and **19.6%** is influenced by other factors. This indicate that teachers' capacity building has an effect on the construction of individual and collective competences in public primary schools.

Table 22: Analysis of variance

ANOVA[a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	22,907	1	22,907	196,575	1,3561E-18
	Residual	5,593	48	0,1166		
	Total	28,5	49			

a. Dependent Variable : construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division mean
b. Predictors : (Constant), Teachers' capacity building mean

Source: researcher from field data, 2025.

The analysis of variance (ANOVA) was used to check the significant level. A significant regression equation was obtained as $F\ (1, 48) = 196.575$, $p<0.05$**.** The *p*-value obtained indicated that there is a statistically significant influence of teachers' capacity building on the

construction of individual and collective competences in public primary schools. The result above reveals that the teachers' capacity building influences the construction individual and collective competences in literacy and numeracy in public primary schools because they are linearly related.

Table 23: Table of Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,622	0,044		14,021	1,3561E-18
	Teachers' capacity building Mean	0,706	0,111	.897	6,384	6,4877E-08

a. Dependent Variable : construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division mean

Source: researcher from field data, 2025.

The simple linear regression model indicates that the independent variable (teachers' capacity building) had a positive β coefficient. According to the regression equation established, teachers' capacity building at a constant of zero, construction individual and collective competences in literacy and numeracy in public primary schools will be 0.62. The findings also reveal that every unit increase in teachers' capacity building will lead to a 0.706 increase in construction individual and collective competences in literacy and numeracy in public primary schools. At 5% level of significance and 95% level of confidence, teachers' capacity building has a 0.000 level of significance, which means it has significance influence on construction individual and collective competences in literacy and numeracy in public primary schools.

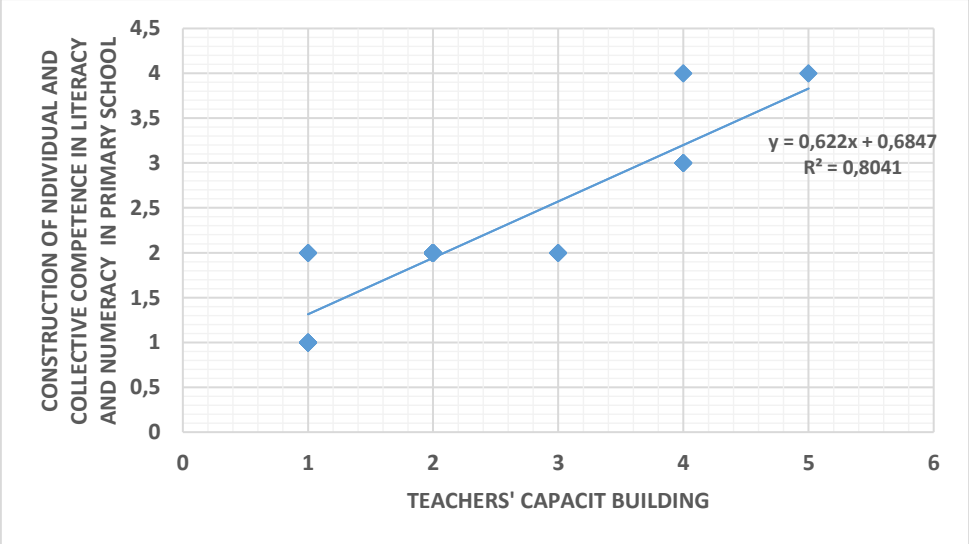

Figure 8: Linear regression analysis: the teacher capacity building as a predictor of the construction of individual and collective competences in literacy and numeracy in public primary school

Source: researcher from field data, 2025.

In light of these results, the alternative hypothesis is validated and the null hypothesis is rejected. This means the teacher's capacity building influences positively the construction of individual and collective competences in in literacy and numeracy among public primary schools in Yaoundé VI sub- division.

4.2.2. Verification of research hypothesis 2

To determine how the instructional delivery affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division, we first of all formulate the null and the alternative hypothesis.

H0: the instructional delivery is not a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.

Ha: the instructional delivery is a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.

Table 24: Model summary table for SH2

Model	R	R Square	Adjusted R Square	Std. Error of the estimation
1	.913[a]	.833	.829	.3150

a. Predicted Values: (constant), Instructional delivery Mean

Source: researcher from field data, 2025.

The independent variable studied, explain that the construction of individual and collective competences in literacy and numeracy in public primary schools is influenced by **83.3%** by the independent variable, as represented by the **R square** in the table above, and **16.7%** is influenced by other factors. This indicate that instructional delivery has an effect on the construction of individual and collective competences in literacy and numeracy in public primary schools.

Table 25: Analysis of variance table

ANOVA[a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	23.737	1	23.737	239.226	2.815E-20
	Residual	4.763	48	0.099		
	Total	28.5	49			

a. Dependent Variable : construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division mean
b. Predictors : (Constant), Instructional delivery Mean

Source: researcher from field data, 2025.

The analysis of variance (ANOVA) was used to check the significant level. A significant regression equation was obtained as F (1, 48) =239.226, p <0.05**.** The p-value obtained indicated that there was a statistically significant influence of instructional delivery on the construction of individual and collective competences in literacy and numeracy in public primary schools. The result above reveals that instructional delivery is a significant predictor of the construction of individual and collective competences in literacy and numeracy in public primary schools because they are linearly related.

Table 26: Coefficients table

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.813	.053		15.47	2.815E-20
	Instructional delivery mean	.507	.112	.913		

a. Dependent Variable : construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division mean

Source: researcher from field data, 2025.

The simple linear regression model indicates that the independent variable (instructional delivery) had a positive β coefficient. According to the regression equation established, instructional delivery at a constant of zero, the construction of individual and collective competences in literacy and numeracy in public primary school will be 0.813. The findings also reveal that every unit increase in instructional delivery will lead to a 0.507 increase in the construction of individual and collective competences in literacy and numeracy in public primary school. At 5% level of significance and 95% level of confidence, instructional delivery has a 0.000 level of significance, which means it has significance influence on the construction of individual and collective competences in literacy and numeracy in public primary school.

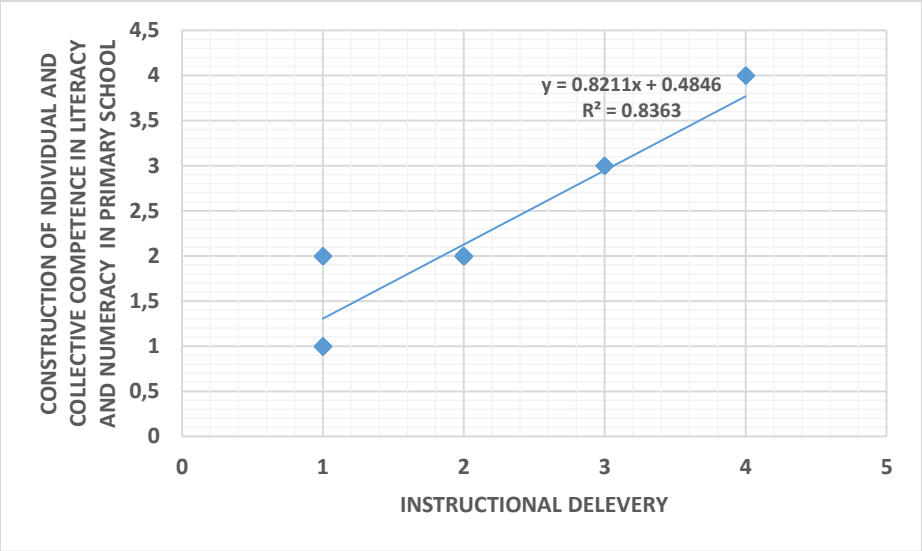

Figure 9: Linear regression analysis: the instructional delivery as a predictor of the construction of individual and collective competences in literacy and numeracy in public primary school

Source: researcher from field data, 2025.

In light of these results, the alternative hypothesis is validated and the null hypothesis is rejected. This means the instructional delivery is a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division.

4.2.3. Verification of research hypothesis 3

To examine how the resource availability affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division, we first of all formulate the null and the alternative hypothesis.

H0: the resource availability does not influence the construction of individual and collective competences in literacy and numeracy in public primary school in Yaoundé VI sub-division.

Ha: the resource availability influences the construction of individual and collective competences in literacy and numeracy in public primary school in Yaoundé VI sub-division.

Table 27: Model summary table for HS3

Model	R	R Square	Adjusted R Square	Std. Error of the estimation
1	.737[a]	.543	.533	.5212

a. Predicted Values: (constant), Resources Availability mean

Source: researcher from field data, 2025.

Concerning the third independent variable, the linear regression model explains that the construction of individual and collective competences in literacy and numeracy in public primary schools is influenced by **54.3%** by the independent variable, as represented by the **R square** in the table above, and 45.7**%** is influenced by other factors. This indicate that resources availability has also an effect on that the construction of individual and collective competences in literacy and numeracy in public primary schools.

Table 28: Analysis of variance table

ANOVA[a]

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	15.463	1	15.463	56.93	1.079E-09[b]
	Residual	13.037	48	0.272		
	Total	28.5	49			

a. Dependent Variable : construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division mean
b. Predictors : (Constant), Resources Availability mean

Source: researcher from field data, 2025.

The analysis of variance (ANOVA) was used to check the significant level. A significant regression equation was obtained as F (1, 48) = 58.731, $p<0.05$**.** The *p*-value obtained indicated that there was a statistically significant influence of resources availability on the construction of individual and collective competences in literacy and numeracy in public primary schools. The result above reveals that resources availability is a predictor of that the construction of individual and collective competences in literacy and numeracy in public primary schools because they are linearly related.

Table 29: Coefficients table

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.444	0.059		7.55	1.079E-09
	Resources Availability mean	0.572	0.216	.737	2.651	0.011

a. Dependent Variable : construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division mean

Source: researcher from field data, 2025.

The simple linear regression model indicates that the independent variable (resources availability) had a positive β coefficient. According to the regression equation established, resources availability at a constant of zero, the construction of individual and collective competences in literacy and numeracy in public primary schools will be 0.444. The findings also reveal that every unit increased in resources availability will lead to a 0.572 increase in the construction of individual and collective competences in literacy and numeracy in public primary schools. At 5% level of significance and 95% level of confidence, resources availability had a 0.000 level of significance, which means it have an influence on the construction of individual and collective competences in literacy and numeracy in public primary schools.

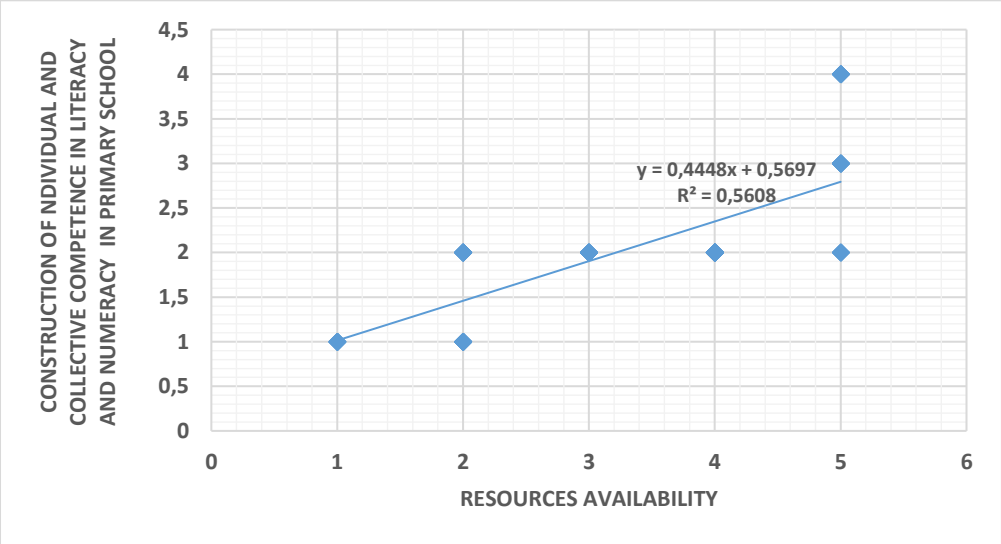

Figure 10: Linear regression analysis: the resources availability as a predictor of the construction of individual and collective competences in literacy and numeracy in public primary school

Source: researcher from field data, 2025.

In light of these results, the alternative hypothesis is validated and the null hypothesis is rejected. This means the resource availability does not influence the construction of individual and collective competences in literacy and numeracy in public primary school in Yaoundé VI sub-division.

Table 30: summary of data analysis

Hypothesis	**Correlation coefficient R**	**Coefficient of determination R^2**	**ANOVA**	**Sig**	**Decision**
Specific hypothesis 1	.897	.804 (80.4%)	*F (1, 48)* = 196.575, *p*<0.05	1,3561E-18 <0.05	Confirmed

Specific hypothesis 2	.913	.833 (88.3%)	F (1, 48) =239.226, p <0.05.	2.815E-20 <0.05	Confirmed
Specific hypothesis 3	.737	.543 (54.3%)	F (1, 48) = 58.731, p<0.05	1.079E-09 <0.05	Confirmed

Source: researcher, 2025.

4.3. Summary

This chapter was consecrated to analysing the data collected in the field using a questionnaire. The analysis was carried out using SPSS 23.0 and Excel 16 software. The descriptive statistic is presented in tables and figures showing the frequencies of the respondents perception on the various items submitted to their assessment. Statistical inference was carried out using simple linear regression and ANOVA. At the end, the three hypotheses were confirmed. The next chapter will discuss these results in relation to the theoretical framework, and open up avenues for future research.

CHAPTER FIVE: DISCUSSION OF FINDINGS, SUGGESTIONS AND PERSPECTIVES

5.0.Introduction

This section is based on the discussion of the findings which is backed by the views of other authors with respect to the relevant theories and the researcher's perception on the reality on ground. The findings have gained grounds based on results from research instruments.

5.1. Recall of theoretical and empirical frameworks

5.1.1. Recall of theoretical framework

This study is grounded in a framework that integrates Michael Fullan's theory of educational change with a context-specific understanding of the factors influencing curriculum implementation in Cameroon. This framework posits that the successful implementation of the 2018 curriculum, leading to the construction of individual and collective competences in literacy and numeracy (DV), is primarily influenced by the implementation of new 2018 curriculum (IV). The IV has been operationalise into three modalities: teacher's capacity building (IV1), instructional delivery (IV2), and resource availability (IV3).

Fullan's model of educational change provides the overarching theoretical lens. His emphasis on the implementation phase as a process of learning and sense-making is central. The theory highlights that for any new curriculum to be effective, it must be accompanied by changes in teacher practices, beliefs, and materials. The three independent variables in this study can be directly mapped onto Fullan's critical factors for successful implementation:

- Teacher's Capacity Building (IV1). Fullan (2016) argues that the capacity of educators is a primary determinant of successful change. This includes their knowledge, skills, and dispositions. Professional development and ongoing support are crucial for building this capacity, enabling teachers to understand and enact the new curriculum's pedagogical demands (in this case, the competency-based approach).

- Instructional delivery (IV2). This aligns with what Fullan(2016) terms "leadership and organizational factors". He stresses the importance of support from school and district leaders. This includes providing clear communication, fostering a collaborative school culture, and actively supporting teachers through the challenges of implementation. The instructional delivery in this study likely encompasses the roles of head teachers, pedagogical supervisors, and the broader educational administration in facilitating the curriculum reform.

- Resource Availability (IV3). Fullan (2016) acknowledges that adequate resources are a necessary, though not sufficient, condition for change. This includes not only financial

resources but also high-quality instructional materials, technology, and appropriate physical learning environments. A lack of essential resources can be a significant barrier to implementation, regardless of teacher motivation or leadership support.

Concerning the DV, the theoritical framework was based on the Jonnaert and Vander Borght (2003) socio-constructivist and interactive perspective (the SCI model) in a school context. This theoretical framework of the construction of competence is made up of the following three dimensions: the constructivist basis of the knowledge construction process, the interactive basis of the knowledge construction process and the socio dimension of the knowledge construction process. The implementation of the new2018 curriculum is presented according to a competence-based approach (CBA). CBA facilitates the development of competences thus it's coherence with the socio-constructivist and interactive model of knowledge constriction. According to socio-constructivist perspective of learning, interactivity, situational cognitive conflict is fundamental.

5.1.2. Recall of empirical framework

This study was conducted to investigate how the implementation of the new 2018 curriculum affects the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI sub-division. For this, the study formulate a general hypothesis (GH): A high-quality implementation of the new 2018 curriculum, characterized by the effective teachers capacity building, the instructional delivery and the resources availability, positively and significantly influences the construction of individual and collective competences in literacy and numeracy among public primary school students in Yaoundé VI. This general hypothesis has been broken down into specific (or operational) hypotheses. After the analysis, the first two research hypotheses were validated and the last one was not confirmed. The results are presented as follow:

- **Specific Hypothesis 1 (SH1):** the teacher's capacity building influences positively the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI.

For the specific hypothesis 1, the results show the Correlation coefficient **R= 0**.897, the linear regression model of VI explains 80.4% of the variance of the VD; ANOVA: $F\ (1, 48) = 196.575$, $p<0.05$, hypothesis confirmed.

- **Specific Hypothesis 2 (SH2):** the instructional delivery is a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI.

For the specific hypothesis 2, the results show the Correlation coefficient **R= 0**.913, the linear regression model of IV explains 88.3% of the variance of the VD; ANOVA: F (1, 48) =239.226, p <0.05, hypothesis confirmed.

- **Specific Hypothesis 3 (SH3):** the resource availability influences the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI subdivision.

For the specific hypothesis 3, the results show the Correlation coefficient **R= 0**.737, the linear regression model of IV explains 54.3% of the variance of the VD; ANOVA: F (1, 48) = 58.731, p<0.05, hypothesis confirmed.

5.2. Discussion of findings

5.2.1. The teachers' capacity building as a signification predictor of the construction of individual and collective competences in literacy and numeracy in public primary schools

The teacher's capacity building (VI1) positively influences the construction of individual and collective competences in literacy and numeracy (VD). The strong positive correlation (R=0.897), the high coefficient of determination (R^2=0.804), and the significant ANOVA result (F(1, 48) = 196.575, p<0.05) confirm this hypothesis. This finding powerfully validates a central tenet of Fullan's work: the critical importance of the human element in educational change. The fact that teacher's capacity building explains 80.4% of the variance in the construction of literacy and numeracy competences is a testament to the idea that curriculum reform lives or dies in the classroom.

Fullan (2016) argues that implementation is fundamentally a learning process for teachers. The new 2018 curriculum, with its emphasis on a competency-based approach, represents a significant departure from traditional, knowledge-transmission models of teaching. It requires teachers to develop new skills in facilitating student-led inquiry, designing authentic assessment tasks, and fostering collaborative learning environments.

The strong correlation coefficient of 0.897 suggests that where teachers have been effectively trained, supported, and have developed a deep understanding of the new curriculum's philosophy and methods, there is a correspondingly high level of development in student

competences. This aligns with Fullan's assertion that changes in teacher practices and beliefs are prerequisites for changes in student outcomes.

The high explanatory power of the regression model (80.4%) indicates that investments in high-quality, sustained professional development for teachers are likely the most effective lever for improving literacy and numeracy outcomes under the new 2018 curriculum. This is not just about one-off workshops, but about creating what Fullan (2016) calls a culture of learning for teachers, where they have ongoing opportunities to learn from each other, reflect on their practice, and receive constructive feedback. The confirmed hypothesis underscores that without a well-equipped and confident teaching force, the ambitious goals of the new 2018 curriculum reform will remain largely on paper.

5.2.2. The instructional delivery as a signification predictor of the construction of individual and collective competences in literacy and numeracy in public primary schools

For the second hypothesis, the findings reveal that the instructional delivery (VI2) is a significant predictor of the construction of individual and collective competences in literacy and numeracy (DV). The very strong positive correlation ($R=0.913$), the high coefficient of determination ($R^2=0.883$), and the significant ANOVA result ($F(1, 48) = 239.226$, $p<0.05$) confirm this hypothesis.

This finding is perhaps the most striking of the study, with instructional delivery explaining a remarkable 88.3% of the variance in the dependent variable. This strongly supports Fullan's (2016) emphasis on the crucial role of leadership and the broader school system in driving and sustaining educational change. Fullan (2016) posits that while implementation happens at the classroom level, it cannot be successful in isolation. Teachers need a supportive and enabling environment.

The 'Instructional delivery' as a concept likely encompasses the actions of school head teachers, pedagogical inspectors, and the administrative chain of the Ministry of Basic Education. A high correlation of 0.913 suggests that when this institutional machinery works effectively, providing clear direction, consistent support, and fostering a collaborative and non-threatening environment, the impact on the development of student competences is profound.

Fullan (2016) highlights the importance of 'pressure and support'. Effective instructional delivery provides both. The pressure comes from the clear expectation that the new curriculum

will be implemented, while the support comes in the form of resources, training, and encouragement. The results of this hypothesis suggest that in the schools in Yaounde VI where instructional delivery was perceived as strong, teachers felt more empowered and equipped to implement the new curriculum effectively.

The high predictive power of this variable also points to the significance of what Fullan (2016) calls coherence. When the messages and support from all levels of the educational hierarchy are aligned, it creates a coherent and focused effort for change. Conversely, if there are mixed messages, a lack of follow-up from inspectors, or unsupportive school leadership, even the most motivated teachers will struggle. The confirmation of this hypothesis sends a clear message to educational administrators: their role is not merely bureaucratic; it is fundamentally about actively leading and supporting the pedagogical work of teachers to achieve desired learning outcomes.

5.2.3. The resources availability as a moderate predictor of the construction of individual and collective competences in literacy and numeracy in public primary schools

Finding: The resource availability (IV3) influences the construction of individual and collective competences in literacy and numeracy (DV). The moderate positive correlation ($R=0.737$) and the significant coefficient of determination ($R^2=0.543$) with a significant ANOVA result ($F(1, 48) = 58.731$, $p<0.05$) led to the hypothesis being confirmed.

This finding, which shows that resource availability explains 54.3% of the variance in student competences, aligns with Fullan's framework, though it also offers a nuanced perspective. Fullan argues that while resources are important, they are not the sole determinant of success. The results of this study support this view. While significant, the influence of resource availability is less pronounced than that of teacher capacity and institutional delivery. A competency-based curriculum often requires a richer and more diverse range of learning materials than traditional approaches. Students are expected to engage in hands-on activities, work with authentic texts, and use manipulatives in mathematics. A correlation of 0.737 indicates that the availability of these resources is indeed a significant factor. Without the necessary tools for learning, the implementation of the curriculum is undoubtedly hampered. Teachers cannot be expected to facilitate inquiry-based learning without the materials for inquiry.

However, the fact that this variable explains less of the variance than the human and organizational factors (teacher capacity and institutional delivery) is also telling. It supports

Fullan’s assertion that "you can’t buy your way to reform." Simply providing schools with new textbooks and materials is not enough to bring about deep and lasting change. The human capacity to use those resources effectively and the institutional support to encourage their proper use are even more critical.

This finding suggests that while addressing the issue of resource scarcity in Cameroonian primary schools is essential, it should not be seen as a silver bullet. A holistic approach that simultaneously builds teacher capacity, strengthens institutional support, and ensures adequate resourcing is what will ultimately lead to the successful implementation of the 2018 curriculum and the desired improvements in literacy and numeracy. The moderate strength of this relationship compared to the others reinforces the idea that the interactive, human dimensions of change are the most powerful drivers of success.

5.3. Suggestions

In light of the findings and their discussion, several suggestions can be made to the various actors in the Cameroonian education system, as well as perspectives for future research.

For policymakers (ministry of basic education)

- Reorient Professional Development: Given the massive influence of teacher capacity (HS1), it is imperative to move from a cascade training model to a model of continuous, integrated, and practice-oriented professional development. Investment should be made in creating "Professional Learning Communities" (PLCs) within schools or pedagogical zones, where teachers can collectively plan lessons, observe their peers, and reflect on their practices in direct connection with competency-based pedagogy.

- Strengthen Pedagogical Leadership: The overwhelming weight of institutional support (SH2) demonstrates that head teachers and inspectors are the pivots of the reform. It is crucial to establish specific training programs for these managers, focused not on administrative management, but on pedagogical leadership: how to lead a team, how to conduct a constructive classroom observation, how to analyze student results to drive improvement, and how to create a positive and collaborative school culture.

- Ensure Equitable and Strategic Resource Funding: Although less predictive than human factors, the lack of resources (SH3) remains a major obstacle. A policy for providing resources (textbooks, teaching materials) must be implemented, but it must be "intelligent." It should be coupled with training on the use of these resources from the perspective of a pedagogy of the

situation. Furthermore, a decentralized funding mechanism could allow schools to meet their specific needs.

For managers (inspectors and head teachers)

- Become "Leaders of Learning": Head teachers in Yaoundé VI should devote a significant part of their time to pedagogical activities: classroom visits with feedback, leading pedagogical meetings, and modeling good practices. Their role is to create an ecosystem where innovation and collaboration are encouraged.

- Focus on Support rather than Control: Pedagogical inspectors should evolve from a role of 'controlle' of compliance to a role of 'coach' or 'pedagogical advisor'. Their visits should aim to help teachers solve the concrete problems they encounter in implementing the competency-based approach.

For teachers

* Adopt a Stance of a Reflective and Collaborative Practitioner: Teachers must actively engage in their own professional development. This involves seeking collaboration with colleagues, being open to observation and feedback, and seeing the implementation of the new curriculum as an opportunity to learn and innovate.

* Focus on the "Problem-Situation": The key to the new approach is to think about teaching not in terms of content to be covered, but of situations for students to experience. Teachers should focus their efforts on designing authentic, complex, and meaningful tasks that push students to mobilize and develop their competences.

5.4. Research Perspectives

Longitudinal Study

This study offers a snapshot at a specific point in time. A longitudinal study following a cohort of schools over several years would allow for an understanding of how these factors interact over time and how implementation evolves towards institutionalization (Fullan's third phase).

Comparative Research

It would be extremely relevant to replicate this study in rural areas of Cameroon. Comparing the results would help determine if the relative influence of these three variables (capacity, institution, resources) is the same in different contexts, which would refine educational policies.

In-depth Qualitative Analysis

While this quantitative study demonstrates the influence of the variables, qualitative research (case studies, interviews, classroom observations) would be necessary to understand the process. How does institutional support manifest itself in concrete terms? What are the characteristics of effective professional development? How do teachers actually design learning situations?

Zooming in on Collective Competences

The concept of "collective competences" is innovative. A specific research project could be conducted to precisely define and evaluate this dimension, and to identify the pedagogical practices that best promote it.

5.5. Difficulties

Difficulties and constraints are parts and parcels of research. This is because conducting a research is not an easy initiative and thus require a lot of determination, endurance, perseverance and patience on the side of the researcher. Once an individual embark on carrying out a study, he or she will always be faced with this or that difficulty. In the present study, the researcher was faced with difficulties of varying nature such as accessibility, financial, time, language etc.

Accessibility of the participants

The researcher in this study opted to work with only teachers of class four, class five and class six of the twelve selected primary schools that constituted our case study. The choice of this population stratum was for the simple reason that they were well placed to provide us with data which we needed to understand the phenomenon. This population stratum appears to be very busy and access to them was made very difficult since some were in total concentration with their students preparing for Common Entrance exam and First School Leaving Certificate. This and many other factors did not work to the advantage hindering the data collection process.

Administrative bottlenecks

Administrative bottleneck was another difficulty that we faced in the process of collecting data. Actually, it was very difficult to collect data in twelve primary schools which constituted the area of the study. This was because the researcher had to pass through the sub-divisional inspectorate for primary education to get an authorisation. Also, we had to equally obtain an authorisation from the various head teachers before we could collect data from the

teachers. The administrative bottle neck and protocol wasted much time. Moreover, the new 2018 curriculum since it came out is also criticize. It became difficult to get information on Cameroon context.

Language constraint

This study was conducted in Yaoundé VI which is purely a French metropolitan city. French is seen as the first language of instructions in this city. Although the study was conducted in government bilingual primary schools which has both the English and the French sub-system within it, language prove to be a challenging factor to both the researcher and the participants. Some participants though of English inclination, found it difficult to understand the whole questionnaire by themselves and so needed the researcher to explain some few things.

GENERAL CONCLUSION

This research, focused on the implementation of the 2018 curriculum and the construction of competences in literacy and numeracy in the public primary schools of the Yaoundé VI sub-division, offers insights of paramount importance for understanding the dynamics of educational reform in Cameroon. It was designed in five chapters which made a close examination of the implementation process on the new 2018 curriculum and its influence in the construction of the individual and collective competence in literacy and numeracy in primary schools in Yaoundé VI sub-division. It begins from the problem, then examines the background of the problem, poses the objectives, ask questions and present some hypothesis. It furthers explores the literature and presents the conceptual framework, theoretical framework, and empirical review. It moves to the methodology and design, presenting the tools of data collection and methods of analysis. It finally collects data, analyse and present the findings. It then discusses them, makes recommendations and proposals.

The problem of this study was the mediocre competences of pupils in literacy and numeracy in public primary schools in Yaounde VI. To solve this problem. The objective of this work was to investigate how the implementation of the new 2018 curriculum affects the construction of individual and collective competences in numeracy and literacy in public primary schools Yaoundé VI sub-division. To achieve this objective, a main research question was formulated to guide this study which reads as follows: how does the implementation of the new 2018 curriculum influence the construction of individual and collective competences in numeracy and literacy in public primary schools in Yaoundé VI subdivision? Beside, a general hypothesis was formulated which stated that a high-quality implementation of the new 2018 curriculum, characterized by the effective teacher's capacity building, the instructional delivery and the resources availability, influences the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI sub-division. As such, explanatory theories were identified for this study from to the critical literature review of the study.

To achieve the aim of this study, an appropriate methodology was adopted which the research type been experimental, the approach been quantitative. A sample size of 51 teachers of class five and six was selected for this study using the purposive sampling technique. A questionnaire of close ended questions constructed basing on the Likert scale was used to collect data and the validity was done through the content validity and reliability tested through the alpha Cronbach. For the data analysis, both the descriptive and inferential (simple linear regression and ANOVA)

statistics were used with analysis tool been the SPSS. The analysis of the data let to the following results;

For the specific hypothesis 1, the results show the Correlation coefficient **R= 0**.897, the linear regression model of VI explains 80.4% of the variance of the VD; ANOVA: *F (1, 48)* = 196.575, $p<0.05$, hypothesis confirmed. . This implies that the teacher's capacity building influences positively the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI. For the specific hypothesis 2, the results show the Correlation coefficient **R= 0**.913, the linear regression model of VI explains 88.3% of the variance of the VD; ANOVA: F (1, 48) =239.226, $p<0.05$, hypothesis confirmed. This implies that the instructional delivery is a significant predictors of the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI. And lastly for the specific hypothesis 3, the results show the Correlation coefficient **R= 0**.737, the linear regression model of VI explains 54.3% of the variance of the VD; ANOVA: F (1, 48) = 58.731, $p<0.05$, hypothesis confirmed. This implies that the resource availability influences the construction of individual and collective competences in literacy and numeracy in public primary schools in Yaoundé VI.

By relying on a rigorous quantitative methodological framework, the study was able not only to confirm the existence of significant relationships but also, and above all, to hierarchize the importance of the variables studied. It is in this hierarchisation that the most significant contribution of the thesis lies.

The first major lesson concerns the predominant role of frontline actors. The hypothesis confirming the massive influence of teacher capacity building (VI1), which alone explains over 80% of student success, corroborates decades of research in the educational sciences. It is a powerful reminder that the teacher is not a simple technician but the main agent of change. The transition to a competency-based approach, as advocated by the 2018 curriculum, represents a fundamental pedagogical rupture. It requires teachers to abandon the posture of a simple transmitter of knowledge to become architects of complex learning situations, mediators, and guides. This change in professional identity cannot be improvised; it must be built. The study's result is a powerful plea for massive, continuous, and intelligent investment in the professional development of teachers. It is not about multiplying top-down seminars, but about creating sustainable support and collaboration structures, as close as possible to classroom realities, that

allow teachers to learn, experiment, reflect, and improve collectively. The study shows that where this investment in human capital is successful, the reform bears fruit spectacularly.

Then, the most striking of this study, is the almost absolute power of the "institutional delivery" variable (VI2), which explains over 88% of the variance in student competences. This figure, even higher than that of teacher capacity, carries an essential message: even the most competent and well-trained teachers can only succeed if the system surrounding them carries and supports them. This "institutional delivery" encompasses the pedagogical leadership of head teachers, the wise support of inspectors, and the coherence of administrative directives. The study demonstrates that the school is an ecosystem. When this ecosystem is healthy, characterized by a clear vision, a culture of collaboration, psychological safety for innovation, and alignment between the words and actions of leaders, it acts as a formidable amplifier of the individual skills of teachers. Conversely, a school environment marked by isolation, purely administrative leadership, nit-picking control, or contradictory injunctions will stifle the best intentions. The conclusion to be drawn is that the training of education managers (head teachers and inspectors) is just as, if not more, strategic than that of teachers. Transforming these managers into true leaders of pedagogical change appears to be the most effective lever for ensuring the success of the reform on a large scale. Change must be led, and this leadership is the primary responsibility of the institution.

Finally, the study brings a nuance regarding the role of material resources (VI3). By demonstrating that the availability of resources explains a significant (54.3%) yet smaller share of the variance than human and organizational factors, the study avoids the twin pitfalls of denial and over-determination. To deny the importance of resources in a context where textbooks and teaching materials are often lacking would be a mistake. It is obvious that an active, student-centered pedagogy requires tools to manipulate, read, and explore. The result confirms that the lack of resources is a tangible brake on learning. However, the study warns against the "magical thinking" that would suggest that injecting material resources is enough to transform the system. The stronger impact of variables VI1 and VI2 suggests that the wisest educational policy is not one that pits investment in resources against investment in people, but one that articulates them intelligently. Resources are only useful if teachers are trained to use them relevantly and if institutional leaders create a framework that encourages their judicious use.

In conclusion, this study offers much more than a simple evaluation of the implementation of the 2018 curriculum in Yaoundé VI. It proposes a robust and hierarchical explanatory model of

the conditions for success of any educational reform in a similar context. The final message is a call to focus efforts and investments on people and organization. For Cameroonian students to build the literacy and numeracy competences they need for their future, it is first and foremost necessary to invest in the know-how, well-being, and collaboration of their teachers. But this investment will be in vain if it is not carried by strong, visionary, and deeply committed institutional leadership at the service of pedagogy. The quality of an education system is ultimately measured by the quality of its teachers and the capacity of the organization to allow them to give their best. This study, by the force of its results, provides a striking demonstration of this. It constitutes a precious roadmap for the actors who have the heavy but exhilarating responsibility of transforming the promise of the 2018 curriculum into a sustainable success for all the children of Cameroon.

APPENDIXES

Appendix 2: Research questionnaire

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QUESTIONNAIRE FOR TEACHERS.

I am a Master's student undertaking a course in Curriculum and Evaluation Department in the University of Yaoundé 1. I am conducting a study on *the influence of the implementation of the New 2018 curriculum on the construction of individual and collective competence in numeracy and literacy in public primary schools in Yaoundé VI sub-division.* Therefore, your school has been selected to participate in the study. As a participant, kindly fill the information below and be rest assured that the information you provide will be treated with high degree of confidentiality. Your assistance and cooperation will be highly appreciated. Thanks for your participation.

SECTION: Socio-demographic information

***Instruction*: Please tick against the most appropriate answers;**

1. **Gender**

   ☐ Male ☐ Female

2. **Age range**

   ☐ Under 25 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55 and over.

3. **Teaching Diploma**

   ☐ Academic Diploma ☐ Professional Diploma

4. **Years of teaching Experience**

   ☐ 0-10 years ☐ 11-20 years ☐ 21-30 years ☐ 31+ years

5. **Grade Level taught**

   ☐ Class 5 ☐ Class 6

SECTION B: THE IMPLEMENTATION OF THE NEW2018 CURRICULUM

Please tick one of the following options that suit your response.

SA= Strongly Agree ; A=Agree ; N=Neutral ; D=Disagree ; SD= Strongly Disagree.

RQ.1: Teacher's capacity building

N°	STATEMENT	SA	A	N	D	SD
Q1.1	The frequency of workshops and pedagogic seminars is sufficient for teachers to well understand mathematics and language syllabus design.					
Q1.2	I am adequately trained to teach all aspects of the new syllabus in mathematics and English language.					
Q1.3	Teacher's participation in training has improved their classroom teaching skills in Mathematics and English/French language.					
Q1.4	Teachers feel more confident in applying what they learned during workshops and seminars activities.					
Q1.5	The size and layout of the classroom is suitable for teaching/learning process in reading comprehension					
Q1.6	Teachers feel comfortable in using competence assessment methods in Mathematics and English/French language classes					
Q1.7	Teachers don't have time to waste in looking for students with disruptive behaviour in class.					
Q1.8	Teachers provide group activities (group projects, group discussion, assignments, debates) during mathematics and language learning process in the classroom.					
Q1.9	Teachers organise group work in mathematics and language classes for learners to develop important skills such as communication, teamwork and leadership.					
Q1.10	Teachers promote collaboration between students to enhance learning outcomes in mathematics and English/French Language.					

RQ.2: INSTRUCTIONAL DELIVERY

N°	STATEMENT	SA	A	N	D	SD
Q2.1	The learning objectives in literature and mathematics are clearly outlined and understandable by teachers.					

Q2.2	Teachers can easily plan a lesson that's competence based in Mathematics and reading					
Q2.3	Teachers' lesson in mathematics and languages are well monitored before teaching.					
Q2.4	Teachers provide different levels of content to meet the needs of different level of learners.					
Q2.5	Teachers use a variety of instructional strategies to engage students in language and mathematics classes.					
Q2.6	Teachers provide opportunities for students to take ownership of their learning.					
Q2.7	Teachers make sure that students understand the course material in mathematics and languages thoroughly.					
Q2.8	Teachers always make sure that students participate actively in class discussions and activities.					
Q2.9	Teachers make students to be happy while attended classes.					

RQ.3: RESOURCE AVAILABILITY

N°	**STATEMENT**	**SA**	**A**	**N**	**D**	**SD**
Q3.1	Textbooks and other printed materials are available for teachers and students for mathematics and language courses.					
Q3.2	Teacher guides are available for Mathematics and English Language.					
Q3.3	Teachers use charts and posters in the classroom for mathematics.					
Q3.4	The school has a well-equipped library resource-center for teachers and students.					
Q3.5	Teachers have access to computers and internet for instructional purposes and digitalization of learning/teaching process.					
Q3.6	Teachers are confident using a computer for teaching numbers and language					
Q3.7	Teachers can effectively digitalise their teaching process in classroom.					
Q3.8	Teachers have sufficient resources for all subjects.					

Q3.9	The available resources (financial, human, materiel, infrastructure, etc.) are sufficient to meet the needs of children.					
Q3.10	Teachers are satisfied with the level of resources allocated by subject					

SECTION C: CONSTRUCTION OF INDIVIDUAL AND COLLECTIVE COMPETENCES IN NUMERACY AND LITERACY

N°	STATEMENT	SA	A	N	D	SD
Q4. 1	Learners demonstrate reading comprehension skills.					
Q4. 2	Learners can identify the main ideas and supporting details in a text					
Q4. 3	Learners can use correct grammar, spelling and punctuation in the production of simple sentences or texts					
Q4. 4	Learners actively collaborate to do their presentations, assignments and group projects together.					
Q4. 5	Learners can follow and interpret oral instructions related to reading.					
Q4. 6	Learners are able to perform basic mathematical operations (addition, subtraction, multiplication, division)					
Q4. 7	Learners understand basic geometric concepts (shapes and measurements)					
Q4. 8	Learners demonstrate competence in solving problems involving numbers applied to everyday situations					
Q4. 9	Learners are able to reason and explain the process of solving a numeracy problem.					

Thanks for your participation !!!

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QUESTIONNAIRE POUR ENSEIGNANTS.

Je suis étudiant(e) en Master au Département de Curriculum et Evaluation de l'Université de Yaoundé 1. Je mène une étude sur le sujet « *mise en œuvre du Nouveau curriculum 2018 et la construction des compétences individuelles et collectives en numératie et en littératie chez les élèves dans les écoles primaires publiques de l'arrondissement de Yaoundé VI* ». Par conséquent, votre école a été sélectionnée pour participer à l'étude. En tant que participant, veuillez cocher les cases ci-dessous en fournissant les informations exactes. Les informations que vous fournirez seront traitées avec un haut degré de confidentialité et dans l'anonymat. Votre aide et votre coopération seront très appréciées. Merci pour votre participation.

SECTION A : DONNÉES SOCIO-DÉMOGRAPHIQUES

Consigne : Bien vouloir cocher la réponse exacte

1. **Genre**

   ☐ Masculin ☐ Féminin

2. **Age**

   ☐ Moins de 25 ans ☐ 25-34 ans ☐ 35-44 ans ☐ 45-54 ans ☐ 55 et plus.

3. **Diplôme d'enseignement**

   ☐ Diplôme académique ☐ Diplôme professionnel (CAMPIEMP)

4. **Nombre d'années exerçant comme enseignant**

   ☐ 0-10 ans ☐ 11-20 ans ☐ 11-15 ans ☐ 16+ ans

5. **Classe tenue**

   ☐ CM1 ☐ CM2

SECTION B : MISE EN ŒUVRE DU NOUVEAU CURRICULUM 2018

Veuillez cocher l'une des options suivantes correspondant à votre réponse.

TA= Totalement en Accord ; A= en Accord ; N= Neutre ; D= en Désaccord ; TD= Totalement en Désaccord.

QR.1 : RENFORCEMENT DES CAPACITES DES ENSEIGNANTS

N°	Items	TA	A	N	D	TD
Q1.1	La fréquence des ateliers et des séminaires pédagogiques est suffisante pour permettre aux enseignants de dispenser des cours de mathématiques et de langues de façon adéquate.			(		
Q1.2	Les séminaires pédagogiques auxquels les enseignants ont participé leur apportent des compétences suffisantes pour un meilleure organisation des apprentissages					
Q1.3	La participation des enseignants à la formation améliore leurs compétences pédagogiques en mathématiques et en anglais/français.					
Q1.4	Les enseignants se sentent plus confiants pour enseigner après leur participation aux ateliers et séminaires pédagogiques.					
Q1.5	La taille et la disposition de la salle de classe sont adaptées pour l'apprentissage en calcul et en lecture suivie.					
Q1.6	Les enseignants se sentent à l'aise pour utiliser les l'approche par compétence pendant les cours des mathématiques et des langues en classe.					
Q1.7	Les enseignants n'ont pas de temps à perdre pour s'occuper des élèves ayant un comportement perturbateur en classe.					
Q1.8	Les enseignants encouragent les activités de groupe (projets de groupe, discussions de groupe, débats) pendant le processus d'apprentissage des mathématiques et des langues en classe.					
Q1.9	Les enseignants des différentes classes travaillent ensemble pour améliorer leurs compétences et leur approche pour les leçons de mathématiques et en anglais/français.					
Q1.10	Les enseignants encouragent la collaboration entre les élèves pour améliorer les résultats de l'apprentissage en mathématiques et en anglais/français.					

SECTION B : MISE EN ŒUVRE DU NOUVEAU CURRICULUM 2018

Veuillez cocher l'une des options suivantes correspondant à votre réponse.

TA= Totalement en Accord ; A= en Accord ; N= Neutre ; D= en Désaccord ; TD= Totalement en Désaccord.

QR.1 : RENFORCEMENT DES CAPACITES DES ENSEIGNANTS

N°	Items	TA	A	N	D	TD
Q1.1	La fréquence des ateliers et des séminaires pédagogiques est suffisante pour permettre aux enseignants de dispenser des cours de mathématiques et de langues de façon adéquate.			(		
Q1.2	Les séminaires pédagogiques auxquels les enseignants ont participé leur apportent des compétences suffisantes pour un meilleure organisation des apprentissages					
Q1.3	La participation des enseignants à la formation améliore leurs compétences pédagogiques en mathématiques et en anglais/français.					
Q1.4	Les enseignants se sentent plus confiants pour enseigner après leur participation aux ateliers et séminaires pédagogiques.					
Q1.5	La taille et la disposition de la salle de classe sont adaptées pour l'apprentissage en calcul et en lecture suivie.					
Q1.6	Les enseignants se sentent à l'aise pour utiliser les l'approche par compétence pendant les cours des mathématiques et des langues en classe.					
Q1.7	Les enseignants n'ont pas de temps à perdre pour s'occuper des élèves ayant un comportement perturbateur en classe.					
Q1.8	Les enseignants encouragent les activités de groupe (projets de groupe, discussions de groupe, débats) pendant le processus d'apprentissage des mathématiques et des langues en classe.					
Q1.9	Les enseignants des différentes classes travaillent ensemble pour améliorer leurs compétences et leur approche pour les leçons de mathématiques et en anglais/français.					
Q1.10	Les enseignants encouragent la collaboration entre les élèves pour améliorer les résultats de l'apprentissage en mathématiques et en anglais/français.					

	classe.					
Q3.8	Les enseignants disposent de ressources suffisantes pour toutes les matières.					
Q3.9	Les ressources disponibles (financières, humaines, matérielles, infrastructure, etc.) sont suffisantes pour répondre aux besoins de chaque enfant.					
Q3.10	Les enseignants sont satisfaits du niveau des ressources allouées par matière.					

SECTION C : CONSTRUCTION DES COMPETENCES INDIVIDUELLE ET COLLECTIVE EN NUMERATIE ET EN LITERATIE

N°	ITEMS	TA	A	N	D	TD
Q4. 1	Les apprenants font preuve de compétences en matière de compréhension des mots simples et familiers au cours de la lecture.					
Q4. 2	Les apprenants peuvent identifier les idées principales et les détails complémentaires dans un texte.					
Q4. 3	Les apprenants peuvent appliquer les règles de grammaire, d'orthographe et la ponctuation correctement dans la production d'une phrase simple ou d'un texte.					
Q4. 4	Les apprenants collaborent activement pendant les travaux en groupe.					
Q4. 5	Les apprenants peuvent suivre et interpréter les consignes orales liées à la lecture.					
Q4. 6	Les apprenants ont la capacité à effectuer les opérations de base en mathématiques (addition, soustraction, multiplication, division).					
Q4. 7	Les apprenants comprennent les concepts de base en géométrie (formes, mesures).					
Q4. 8	Les apprenants font preuve de compétence en matière de résolution des problèmes mathématiques simples appliquées à des situations réelles.					
Q4. 9	Les apprenants sont capables de raisonner et expliquer la démarche pour résoudre un problème de calcul.					

Merci pour votre adorable participation !!!

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