

REPUBLIQUE DU CAMEROUN

*Paix – Travail – Patrie*

\*\*\*\*\*

UNIVERSITE DE YAOUNDE I

FACULTÉ DES SCIENCES DE

L'ÉDUCATION

DEPARTEMENT DE DE CURRICULA

ET

EVALUATION

\*\*\*\*\*

CENTRE DE RECHERCHE ET DE  
FORMATION DOCTORALE (CRFD) EN  
SCIENCES HUMAINES, SOCIALES ET  
EDUCATIVES



REPUBLIC OF CAMEROUN

Peace – Work – Fatherland

\*\*\*\*\*

UNIVERSITY OF YAOUNDE I

FACULTY OF SCIENCES OF

EDUCATION

DEPARTMENT OF OF

CURRICULA AND

EVALUATION

\*\*\*\*\*

DOCTORAL RESEARCH AND  
TRAINING SCHOOL IN SOCIAL  
AND  
EDUCATIONAL SCIENCES

**SCHOOL INFRASTRUCTURES AND INCLUSIVE  
EDUCATION: AN ANALYSIS OF THE CASE OF THE  
PHYSICALLY IMPAIRED STUDENTS IN LYCEE BILINGUE  
ETOUG-EBE, YAOUNDE**

Memoire presented in view of obtaining a Master's degree in  
Education

Par : **MFABO MBAKOP William**

Bachelor Degree in History of International Relations

Sous la direction de

**BELINGA BESSALA Simon**

**Professor**

**Année Académique : 2017**



## **DEDICATION**

This piece of work is dedicated to the God Almighty and to the entire MFABO and NGWANBOBGA Families.

## ACKNOWLEDGEMENTS

I wish to sincerely thank the following people for their different sacrifices in enabling this work take its rightful form:

Great thanks go to the supervisor of this study, Professor Belinga Bessala Simon for his unwavering support and attention in the course of this study. Special thanks to Mr. Eba Owona for his great guidance and support. In a special way I thank all the personnel of the Department of Curriculum and Evaluation of the Faculty of Education in The University of Yaounde1, for their knowledge, guidance and support.

In a special way I acknowledge the support of my Mother Madam Boguma Beatrice for her love and support throughout my life. Special thanks to my father Mr. Mfabo Charles for his direction, love and support throughout my educational pursuit. Great thanks to my siblings Tiga Ngwendoline, Mfabo lionel, Omboko Gaelle, Nyubila Isabelle. Great thanks to Dinga Guy Bertrand and Bosung Marguerite.

I acknowledge the love and supports I enjoyed from friends. A Special appreciation to Sumamu Cosmas for his consistency and multiple supports. Many thanks to Minlong Emma Cathy, Fama Pie Rostang, Tieh Nelson, Fouda Andre Landry, Tieh Joyce, Abouem Jackson, Ebale Yves, Dimu Tongmo Winnie and Fogha Valince.

I sincerely thank all my classmates for their undying support.

## ABSTRACT

Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners. Despite the drafting of many international, regional and national conventions on persons with disabilities, access to infrastructure and buildings that are open to public use and the creation of partnerships to enhance the attendance of children with disabilities still has a long way for actual realization. The inability to access places in schools such as classrooms, restaurants, the administrative blocks has become a pertinent problem to reckon with. This problem arises because the school environment is designed without taking into consideration the possible needs of the physically challenged.

This study titled “School Infrastructures and Inclusive Education: An Analysis of the Case of Physically Impaired Students at Lycee Bilingue Etoug Ebe, Yaounde”, was aimed at finding out if school infrastructures in the Lycee Bilingue Etoug ebe are suitable for inclusive education of the physically challenged students.

The Descriptive research design was used and the proportionate systematic random sampling technique was used to draw out 318 participants for the study. A closed ended questionnaire was used, constructed by the researcher with a set of 24 items, divided into four parts. The first part of the questionnaire collected demographic information; the section 2 measured the enrolment of students with physical disabilities. The section 3 measured elements related to the school’s infrastructure among others the classroom size, availability of special seats for physically challenged and others. The last section measured the school environment in general with special emphasis to the access to different key areas in the school. These sections collected information to test the different hypotheses and answer the different research questions

The data collected was analyzed with the use of SPSS version 20.0, wherein both descriptive statistics (charts, frequency distribution tables, measures of central tendency) and inferential statistics (chi square and Cramer V) was used. The findings revealed that there is no significant relationship between school enrolment and the school environment, there is no relationship between the school’s building and the inclusive education of the physically challenged there is no relation between the structures of the classroom and inclusive education of the physically challenged.

**KEY WORDS: INFRASTRUCTURE, INCLUSIVE EDUCATION**

## RESUME

L'Éducation inclusive est un processus de renforcement des capacités du système éducatif dans le souci de servir tous les apprenants. Malgré la rédaction de nombreuses conventions internationales, régionales et nationales sur l'épineux problème d'accès aux l'infrastructure aux personnes Handicapées physiques, il existe toujours un long chemin à parcourir pour la réalisation concrète. L'incapacité d'accéder aux places dans les écoles, comme les restaurants, les cantines, les salles de classes, les toilettes ainsi que les blocs administratifs devient très alarmant et pose de questionnements pertinents. Ce problème se pose parce que l'environnement scolaire est conçu sans tenir compte des besoins possibles des personnes handicapées. Le milieu scolaire est conçu de telle sorte que l'accessibilité est parfois impossible, en particulier pour ceux qui utilisent des fauteuils roulants.

Cette étude intitulée «Infrastructure scolaire et éducation inclusive: une analyse du cas des étudiants handicapés physiques au Lycée Bilingue Etoug-ebe, Yaoundé» vise à savoir si les infrastructures scolaires sont en adéquation avec les pratiques de l'éducation inclusive dans ce Lycée.

La recherche descriptive a été utilisée et la technique d'échantillonnage aléatoire systématique proportionnelle a été utilisée pour sélectionner 318 participants pour l'étude. Un questionnaire à réponse fermée a été construit par le chercheur avec un ensemble de 24 items, divisé en quatre parties. La première section du questionnaire a recueilli des données démographiques; la deuxième section a mesuré l'enrôlement des élèves ayant des incapacités physiques. La section 3 a mesuré des éléments liés à l'infrastructure de l'école, entre autres, la taille de la classe, la disponibilité de sièges spéciaux pour les personnes handicapées et autres. La dernière section a mesuré l'environnement scolaire en général, en mettant l'accent sur l'accès à différents domaines clés de l'école. Ces sections ont recueilli des informations pour tester les différentes hypothèses et répondre aux différentes questions de recherche

Les données recueillies ont été analysées avec l'utilisation du logiciel SPSS version 20.0, dans lequel les statistiques descriptives ont été utilisées (tableaux, tableaux de distribution de fréquence, mesures de tendance centrale) et les statistiques inférentielles (chi carré et Cramer V). Les résultats révèlent qu'il n'y a pas de relation significative entre l'inscription scolaire et

l'environnement scolaire, il n'y a pas de relation significative entre les bâtiments de l'école et l'éducation inclusive des élèves handicapés physiques. Il n'y a pas de relation entre les structures des salles de classe et l'éducation inclusive des personnes handicapées.

## LIST OF ABBREVIATIONS AND ACCRONYMS

<b>CAPIEMP</b>	<b>Teacher's Grade One Certificate</b>
<b>CESA</b>	<b>Le Centre d'Education Spécialisée pour Aveugle</b>
<b>CNRPH</b>	<b>Centre Nationale de Réhabilitations des Personnes Handicapées</b>
<b>CRC</b>	<b>Convention on the Right of the Child</b>
<b>CRPD</b>	<b>Convention on the Right of Persons with Disability</b>
<b>EFA</b>	<b>Education For All</b>
<b>ENAAS</b>	<b>National School for Social Workers</b>
<b>ESEDA</b>	<b>L'Ecole Spécialisée des Enfants Déficients Auditif</b>
<b>HIV</b>	<b>Human Immunodeficiency Virus</b>
<b>Http</b>	<b>Hyper Text Transfer Protocol</b>
<b>G B H S</b>	<b>Government Bilingual High School</b>
<b>IBE</b>	<b>International Bureau on Education</b>
<b>IDA</b>	<b>International Disability Alliance</b>
<b>IEP</b>	<b>Individual Education Plan</b>
<b>IMF</b>	<b>International Monetary Fund</b>
<b>L B E</b>	<b>Lycee Bilingue Etoug ebe</b>
<b>LSEN</b>	<b>Learners with Special Education Needs</b>
<b>MDGs</b>	<b>Millennium Development Goals</b>

<b>MINEDUB</b>	<b>Ministry of Basic Education</b>
<b>MINDHU</b>	<b>Ministry of Housing and Urban Development</b>
<b>MINEFOP</b>	<b>Ministry of Labour and Vocational Training</b>
<b>MINAS</b>	<b>Ministry of Social Affairs</b>
<b>MINESEC</b>	<b>Ministry of Secondary Education</b>
<b>MINESUP</b>	<b>Ministry of Higher Education</b>
<b>NITS</b>	<b>National Institute of social Work</b>
<b>SDGs</b>	<b>Sustainable Development Goals</b>
<b>Sig</b>	<b>Significance</b>
<b>SPSS</b>	<b>Statistical Package of Social Sciences</b>
<b>SWEN</b>	<b>Students with Special Education Needs</b>
<b>PwD</b>	<b>Persons with Disabilities</b>
<b>UDE</b>	<b>Universal Design in Education</b>
<b>UNESCO</b>	<b>United Nations Educational and Scientific and Cultural Organization</b>
<b>U S</b>	<b>United States</b>
<b>UNO</b>	<b>United Nations Organisation</b>
<b>WPACDP</b>	<b>World Programme for Action Concerning Disabled Persons</b>
<b>WWW</b>	<b>World Wide Web</b>



## **LIST OF APPENDICES**

- Questionnaire in its original version
- Attestation of Research
- Circular letter no 002/LC/MINAP/MINTAP/MINDHU/MINAS of 16 July 2013
- Circular letter no 008/006/LC/MINESUP/MINAS of 09<sup>th</sup> July 2006
- Law no 2010/002 of 13<sup>th</sup> april 2010 on the promotion and protection of Handicapped persons

## LIST OF DIAGRAMS AND TABLES

### 1- DIAGRAMS

Diagram 2.2.1 the Universal Design Approach

Diagram 2.2.2 the Social Model of Disability (Mike Oliver, 1975)

Diagram 2.2.3 Urie Bronfenbrenner Ecological Model of Human Development (1979)

### 2- TABLES

Table 1 chronology of the Legal framework concerning inclusive education

Table 2 the synoptic Table

Table 3 population and sample Repartition

Table 4 Gender Distribution of the respondents

Table 5 Age Distribution per Class

Table 6 class attended

Table 7 physically Handicapped Statistics

Table 8 access to storeybuildings

Table 9 estimated size of Buildings

Table 10 Toilets in Buildings

Table 11 classroom size

Table 12 benches for physically handicapped

Table 13 Priority

Table 14 Access to Teachers Floor

Table 15 school environment

Table 16 Handicapped School Environment

Table 17 school Building

Table 18 class structure and inclusive education

Table 19 planning matrix according to the universal design in education

## TABLE OF CONTENTS

DEDICATION.....	i
ACKNOWLEDGEMENTS.....	ii
LIST OF ACCRONYMS.....	vi
LIST OF APPENDICES.....	viii
LIST OF DIAGRAMS AND TABLES.....	ix
TABLE OF CONTENTS.....	x
<b>CHAPTER ONE : STATEMENT OF THE RESEARCH PROBLEM .....</b>	<b>5</b>
<b>1.1. BACKGROUND TO THE STUDY .....</b>	<b>5</b>
<b>1.2 THE STATEMENT OF THE PROBLEM .....</b>	<b>9</b>
<b>1.3 GENERAL RESEARCH QUESTION.....</b>	<b>11</b>
<b>1.4 GENERAL HYPOTHESIS .....</b>	<b>12</b>
<b>1.5 SCOPE AND DELIMITATION OF THE STUDY.....</b>	<b>12</b>
<b>1.6 DEFINITION OF KEY CONCEPTS.....</b>	<b>13</b>
<b>CHAPTER TWO : LITERATURE REVIEW AND THEORETICAL FRAMEWORK..</b>	<b>17</b>
<b>2.1. LITERATURE REVIEW .....</b>	<b>17</b>
<b>2.1.2 INFRASTRUCTURAL DEVELOPMENT IN AN INCLUSIVE SCHOOL.....</b>	<b>17</b>
<b>2.1.3 CHRONOLOGY OF THE LEGAL FRAMEWORK CONCERNING         INCLUSIVE EDUCATION .....</b>	<b>25</b>
<b>2.1. 4. Critics of Inclusive Education .....</b>	<b>27</b>
<b>2.1.5 Laws and regulations for persons with disabilities in Cameroon .....</b>	<b>31</b>
<b>2.1.6 Inclusion’s Origins in Special education: the shift from integration to inclusion         .....</b>	<b>32</b>
<b>2.1.7 Goals and Rationale of Inclusive Education .....</b>	<b>42</b>

<b>2.1.8 Principles of Inclusive Education</b> .....	43
<b>2.1.9 Importance of inclusive education</b> .....	44
<b>2.2 THEORETICAL FRAME WORK</b> .....	45
<b>2.2.1: THE UNIVERSAL DESIGN APPROACH</b> .....	46
<b>2.2.1 THE SOCIAL MODEL OF DISABILITY (MIKE OLIVER, 1975)</b> .....	48
<b>2.2.2 URIE BRONFENBRENNER ECOLOGICAL MODELS OF HUMAN DEVELOPMENT (1979)</b> .....	51
<b>2.2.3 VARIABLE OF THE STUDY</b> .....	56
<b>2.2.4 TABLE 1: The synoptic table</b> .....	57
<b>CHAPTER THREE : RESEARCH METHODOLOGY</b> .....	<b>58</b>
<b>INTRODUCTION</b> .....	58
<b>3.1: RESEARCH DESIGN</b> .....	58
<b>3.2 POPULATION OF THE STUDY</b> .....	59
<b>3.2.1 Study population</b> .....	59
<b>3.2.2 The target population</b> .....	60
<b>3.2.3 The accessible population</b> .....	60
<b>3.3 THE STUDY SITE</b> .....	60
<b>3.4 SAMPLING TECHNIQUES</b> .....	61
<b>3.5 RESEARCH INSTRUMENTS</b> .....	62
<b>3.6 VALIDITY AND RELIABILITY</b> .....	62
<b>3.6.1 Validity</b> .....	62
<b>3.6.2 Reliability</b> .....	63
<b>3.7 DATA COLLECTION PROCEDURE</b> .....	63
<b>3.8 STATISTICAL TECHNIQUE ANALYSIS</b> .....	63
.....	<b>64</b>

<b>CHAPTER FOUR : PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA .....</b>	<b>64</b>
<b>INTRODUCTION .....</b>	<b>64</b>
<b>CHAPTER FIVE : DISCUSSION OF FINDINGS, THEORETICAL AND PROFESSIONAL IMPLICATIONS AND RECOMMENDATIONS.....</b>	<b>81</b>
<b>5.1 RECALL OF THEORIES 3 .....</b>	<b>81</b>
<b>5.2 RECALL OF EMPERICAL DATA .....</b>	<b>82</b>
<b>5.3 DISCUSSION OF FINDINGS.....</b>	<b>83</b>
<b>5.3.1 Enrolment capacity of the physically challenged .....</b>	<b>83</b>
<b>5. 3.2 School Buildings for Inclusive Education .....</b>	<b>83</b>
<b>5.3.3 Structure of the classroom and inclusive education.....</b>	<b>84</b>
<b>5.4 IMPLICATIONS .....</b>	<b>84</b>
<b>5. 4.1. Theoretical Implications .....</b>	<b>84</b>
<b>5.4.2 Professional implications .....</b>	<b>85</b>
<b>5.5 LIMITATIONS OF THE STUDY .....</b>	<b>86</b>
<b>5.6. RECOMMENDATIONS OR SUGGESTIONS.....</b>	<b>86</b>
<b>5.6.1- To the ministry of Secondary education and policymakers .....</b>	<b>91</b>
<b>5.6.2 To teachers .....</b>	<b>92</b>
<b>5.6.3 To parents .....</b>	<b>93</b>
<b>5.6.4 To the society .....</b>	<b>94</b>
<b>5.6.5 To the physically disabled.....</b>	<b>94</b>
<b>5.6.6 The Curriculum.....</b>	<b>94</b>
<b>5.6.7 Suggestion for further research .....</b>	<b>95</b>
<b>REFERENCES .....</b>	<b>96</b>

## GENERAL INTRODUCTION

Education is essential for the construction of viable economies and societies with outstanding democratic credentials. To Denga (2005), education refers to the processes by which individuals acquire physical and social capabilities required by the society in which they are born for daily functioning. In another perspective, Adeola (2009) found that education has both a quantitative and qualitative side. While the quantitative side of education refers to the economic dividends that ultimately accrue from it to individual and their country as a result of increased earnings, the qualitative aspect has to do with values, culture and needs. High quality cosmopolitan education is one of the most powerful instruments for the reduction of poverty and inequality. As a critical tool for the attainment of the development agenda of any nation and the world at large, education inspires people and fortifies nations. It is indeed a powerful counterbalance, offering opportunities for individuals to graduate themselves out of poverty. The World Bank Report (2010) puts it in this way: quality education strengthens nations economic prospects by laying the foundation for sustained economic transformation.

From the above-mentioned perspectives, education in an ideal sense can be seen as an ultimate value and hence, an agent of development. Relating education with development, the famous critical socialist African Historian Walter Rodney pointed out that “ Development in human society at an individual level implies increased skills and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being”(1974) and that the education offered to Africans during the colonial period was not education for development, but education for under development (Rodney, 1974). By implication, the economic, political and cultural development of any human is dependent on the level and quality of educational development among its citizens. The essence of education (formal or informal) therefore is to produce citizens who will be useful members of the society. It must create in them a disposition for personal autonomy, responsibility and relevant forms of life thoughts and actions.

However, Ulchem (2014) argue that “the merits of education can only be realised if the educational system is such that integrates and addresses the particular needs and aspirations of all citizens within the mainstream educational system; irrespective of physical, socio-economic and political status or background, giving everybody a sense of belonging”. This means that a successful and productive educational system is that which is void of inequalities, discrimination

and exclusion. More so, education is a fundamental human right and is widely recognised as a means to develop human capital, to improve economic performance and to enhance people's capabilities and choices (Epstein, 2010). Diversity in the classroom benefits all children by improving learning and understanding and addressing stereotypes. According to UNESCO (2008), societies characterised by poverty, large inequalities, discrimination and exclusion, they contribute to increasing existing social and economic disparities. They also deviate from the path of equitable and sustainable development which nations are thriving to achieve. It is on these bases that global education stakeholders working in collaboration with some agencies of the UNO were able to put together instruments aimed at addressing inequalities, discrimination, and exclusion in Education the World over thus the concept of inclusive education.

An inclusive education is a process sets out to ensure the enrolment and admission of all types of learners in a school institution without any discrimination or stigmatization (Tukov, 2011) and the inclusiveness in school institutions is in relation to Law No 2010/002 of 13<sup>th</sup> April 2010 laying down guidelines to the promotion and protection of Handicapped persons. The UN committee on Economic , Social, and Cultural Rights (ESCR Committee) which is the UN body in charge of Monitoring State compliances with the ESCR defines primary education as the main delivery system for the basic education for children outside the family and according to this Committee , access to primary education should be compulsory and free for all and more specifically it should be available, accessible, acceptable, adapted and supplemented with a plan of action to ensure its implementation (Kamga, 2011).

The disability is a measurable impairment or limitation that interferes with a person's ability or it may also be referred to as a condition that substantially limits one from more basic physical activities such as walking, climbing stairs but handicap includes physical barriers such as inaccessible buildings, barriers to education, and negative public attitudes. Also, physical disability of any form usually places the individual at some form of disadvantage in the Cameroonian society but however the extent to which a disability affects an individual may be determined by the adaptation strategies he or she adopts in activities of daily living as well as in schools as concerns his or her learning and also the support the teachers give to them to cope in inclusive Schools. An inclusive society is one in which difference is respected and valued, where discrimination and prejudice is actively combat in policies and practices.

Inclusive education concerns, everybody and each society organises itself to educate all its citizens in constructing infrastructure wherein, everybody can access and participate. Educational inclusion is also interested in diverse problems like evaluation practices, curriculum adaptation, training of teachers and organisation of the school environment and in Cameroon Laws relative to inclusive education since 21<sup>st</sup> July 1983 and nothing is done as regards effective inclusion in schools like the organisation of infrastructure.

Before curriculum is effectively evaluated, before education effectively takes place, educational planners should take proper care of access and participation. Access and participation refers to physical access (buildings), academic/ programmes access (to curriculum and instruction through adaptations and supports), social access (to peers), and economic access (to affordable schooling). Physical integration in schools does not equal or ensure participation. For participation to be meaningful, factors such as a school climate that values diversity, a safe and supportive environment, and positive attitudes, is identified in the literature (Peters, 2003). This present study takes pretext of school environment of government Bilingual High School Etoug ebe, Yaounde 6 to question the relation between school infrastructures and inclusive education of the physically challenged. In other words, the researcher seeks to analyse if the school infrastructure favour inclusive education. This study intends to sensitize the educational community to a specific incidence of School infrastructure. Likewise, the study seeks to examine if the structure of the classrooms, the school buildings and organisation of material in the classroom render favourable inclusive education.

To do this, the study adopts a theoretical framework of the Goldsmith (1963) Universal Design approach, which provides a design for building for everyone. The Oliver (1975), Social Model of disability which indicates “that the society causes the individual with physical differences to be disabled”. The Urie bronfenbrenner (1979) ecological models of Human Development which “the various system level setting lies and cooperate with schools in their inclusive education process”. The study was carried out on the physically disabled of the Government Bilingual High School Etoug ebe which serves as a source of information to this study. The methodology of this study lies on quantitative investigation based on questionnaire as a research instrument for Data collection. The data was collected and analysed through SPSS which provides results of findings that indicate a link between school infrastructure and inclusive education.



This work is organised as follows: chapter one introduces the background of the study, the statement of the problem, the research objective, the significance of the study, the scope and delimitation of the study. Chapter two includes the definition of terms, related literature review and theoretical framework. Chapter three consist of research methodology. Chapter four deals with the presentations and interpretations of results. And chapter five talks of discussion of findings, theoretical and professional implication, recommendation and suggestions. The above mentioned sub-headings will be developed as follows.

# **CHAPTER ONE**

## **STATEMENT OF THE RESEARCH PROBLEM**

### **1.1. BACKGROUND TO THE STUDY**

One of the peculiarities of the human being is the ability to transmit knowledge from one generation to the other. That is why in the assessment of knowledge, a comparison is always made between previous and recent practice. Politicians will agree with us that the education ministries constitute one of the sectors with substantial budgetary allocations. This underscores the centrality of education to the general essence of human existence. It is therefore not an exaggeration to say that denying someone the right to education in whatever way is a tantamount to terminating such a person's existence.

The right to education is at the heart of the Education for All (EFA) programme as UNESCO's priority. It responds to the constitutional mandate of the organization, that of ensuring "full and equal opportunities for education for all" (Zimba, 2006). Typically, policy relevant to Inclusive Education begins with a declaration (for example the Salamanca Statement) or convention (for example, Convention on the Rights of the Child) and follows with a Framework for Action or Implementation Handbook (Peters, 2003). In between declarations and frameworks lies a broad terrain of policy/practice critical to implementing inclusive education. Policy development in relation to individuals with disabilities faces challenges to avoid fragmented, uneven, and difficult-to-access services; and inclusive education may be implemented at different levels, embrace different goals, and be based on different motives, reflect different classifications of special education needs, and provide services in different contexts (Peters, 2003).

All children do not only have the right to learn, as set forth in the Convention on the Rights of the Child (CRC); all children can learn, without regard to their physical, intellectual, social, emotional, linguistic, or other conditions. Furthermore, while all children can learn, they may not all learn the same things at the same time, and with the same rhythm or results, but this is generally considered normal and acceptable. In order to take care of these challenges, it is generally agreed that schools need strong inclusive policies and philosophies to support the rights

of all children to participate in an inclusive way (Bunch, 1999; Lupart,2002; Special Education Review Committee,2000).According to Raymond (1995), the tenets of a positive inclusive philosophy include the fact that every learner has the right to participate in all aspects of school life with support to individual needs provided through classroom-modification of regular curriculum. Inclusive practices, therefore exceed attendance in regular school but include the basic values of participation, friendship and interaction, thus, giving a sense of belonging and connectedness.

African governments, in response to global initiatives, have undertaken measures to ensure the educational rights of children irrespective of disabilities. There are several other United Nations human rights treaties and declarations which provide for the right to education (UN 1948, UNESCO 1990). It is an overarching right: the human right to education is in itself indispensable for the exercise of other human rights. Its main attributes are: universal access to primary education free and compulsory for all; accessibility to secondary education in its different forms as well as technical and vocational education which should be made generally available; Capacity-based access to higher education, opportunities for continuing education and literacy programmes and lifelong learning as well as minimum international standards of quality education and of the teaching profession.

The World Programme of Action concerning Persons with Disabilities introduced the concept of equal opportunities and equal access to society when it was adopted in 1982. The global decade (1983-1992) for disabled persons, however, did not bring about any improvement to the quality of life for persons with disability in Africa. Yet, the United Nations Standard Rules on the Equalization of Opportunities for persons with Disabilities, adopted in 1993, strongly reaffirmed the principles of inclusive policies, plans and activities by stating that, the needs and concerns of persons with disabilities should be incorporated into general development plans and not be treated separately (UN,1993). Consequently, the world conference on special needs education in Salamanca in 1994 reiterated the Jomtien 1990 Declaration on Education for all. The Salamanca Conference's conclusion stresses that" Special Need Education –an issue of equal concern to countries of the North and the South –cannot advance in isolation". The Statement called on all governments to adopt as a matter of law or policy the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing

otherwise.

It should be noted, however, that neither the Salamanca Statement nor the Convention explicitly stated that all children with special educational needs should be educated in fully inclusive settings at all levels of the education system. Nor do they explicitly exclude such an interpretation. In other words, there is a degree of ambiguity regarding the intentions of both documents with regard to the meaning of inclusion.

More recently, in December 2006, the 61st session of the United Nations General Assembly confirmed a Convention on the Rights of Disabled Persons, which included a significant commitment to inclusive education. The second goal of the Millennium Development Goals aims at achieving universal primary education by 2015; children everywhere, boys and girls alike, will be able to complete a full course of primary school. In this light, efforts have been and continue to be made towards having a complete and wholesome education that includes all classes and categories of children. In response to this assertion, Cameroon would be adhering to the declaration of World Education Forum in Dakar (2000), that” education is a fundamental human right. It is the key for sustainable development, peace and stability within and among countries, and thus an indispensable means for effective participation in societies and economies of the twenty-first century, which are affected by rapid globalization.”

In Paris France, 2015 an intergovernmental plan of Action was adopted to replace the Millennium development Goals. This plan of Action was called the Sustainable Development Goals (SDGs). The fourth sustainable development Goal called on countries to ensure inclusive and quality education for all and promote lifelong learning. To achieve this goal, a number of targets(7) were proposed and the one which draws our attention is the fifth target which says that; By 2030,countries should eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities , indigenous peoples and children in vulnerable situations.

The Cameroon government has undertaken measures to ensure the educational rights of children and particularly those with disabilities before 1983 when the first law officially offered the possibility for children with disabilities to attend regular schools. A small number of such

children were accepted in mission schools and were taught alongside other children.

After independence in 1961, the education of persons with disabilities was mostly provided in specialized centre. Only a few of such persons attended regular primary schools. Between 1972 and 1975 there were five centers offering special education in Cameroon. These schools were all found in Yaoundé and managed by religious groups. The Ministry of Social Affairs, created in 1975, was charged with the responsibility of overseeing the wellbeing of persons with disabilities and the very old. Approved privately owned special schools in all the regions of the country receive yearly subventions from the State to serve persons with disabilities.

Laws and legislations have been established to improve on access to education and equality issues relating to persons with disabilities and others in disadvantaged situations. For example about three major laws have been promulgated. They are Law N°.83/013 of 21st July 1983 relating to the protection of handicapped persons followed by its text of application put in place in 1990. Measures were undertaken in 1998 after the Education Forum of 1995 to promote the educational rights of children and particularly those with disabilities. On this account Law N° 98/004 of 14th April 1998 laying down guidelines for education in Cameroon was promulgated and in section 6, it states that, the State shall guarantee the right of every child to education.

In most recent times a very important law was enacted; Law No 2010/002/Of 13 April 2010 addressing the protection and welfare of persons with disabilities in Cameroon. The decree among many issues emphasized the provision of special education, psychosocial support, socio-economic integration, medical prevention and access to employment, infrastructure, housing and transport for persons with disabilities. This led the responsible ministries to undertake collaborative actions through joint legislations for action. For example circular letter No.86/L/1656/MINEDUC/CTZ of January 1986 instructed school administrators to facilitate the admission of Learners with Special Education Needs, this may be difficult with severe cases of disability, if the school is not equipped in human, material and physical resources to cater for these needs.

In 2005, 11th October, a circular letter signed by the Minister of Secondary Education gave instructions on the management of visually impaired and hard of hearing students in the

organization of public and class examinations. He emphasized the importance of making available Braille and sign language specialists. In 2006 2nd August both the Ministers of Secondary Education and Social Affairs sent a circular letter relating to the admission of handicapped children and children of handicapped parents in secondary schools. These children were exempted from paying parent/students dues. In addition, a joint circular letter No.283/07/LC/MINSEC/MINAS of 14th August 2007 relative to the identification of children with disabilities and others born of parents with disabilities encouraged the enrolment of these children in government colleges and their participation in official exams. According to this circular letter, only children in government colleges were identified. The implication here is that other such categories of children who attended private and lay private schools were not identified or given special considerations in official examinations. In addition to this, the circular limits consideration only to the physically impaired, the visually impaired and the hard of hearing. For example, the problems of street children are enormous yet strategies for supporting them are still limited (Tchombe & al, 2001).

The Ministries of Higher Education and Social Affairs on 8th July 2008 reinforced the improvement of the condition and support offered to disabled students in State Universities such as the amelioration of examination conditions for students with disabilities, the provision of psychosocial supports through the availability of structures for guidance and counselling, giving priority to disabled students for any job, receiving prizes of excellence and improving on the infrastructure and sport equipments. At this juncture, stakeholders of education still have a long way to go to facilitate access in schools since the yardstick of inclusion is about changing and transforming schools systems to accommodate all learners irrespective of their strengths and weaknesses.

## **1.2 THE STATEMENT OF THE PROBLEM**

Educational exclusion still prevails in Africa, particularly in Cameroon where (in spite the much concern from the international organizations) certain groups of children are vulnerable. These include disadvantaged children (physically impaired and socio-economic and cultural disadvantaged), who are excluded from education. In 2008, Cameroon Ministry of Social Affairs revealed that 435 street children in Yaoundé and Douala do not go to school. The international Bureau of Education report in 2008 attests that only 10% of children with disabilities go to school

in Cameroon. The World Bank in 2012 also revealed that 294,813 children of school age were not enrolled in schools in Cameroon.

Added to this, looking at the strategic document for education and training (DSEF,2013) there is a complete lack of information on the concept of inclusive education in Cameroon making it difficult to address the way forward to achieve the goals of Education for All initiative, thus having implications for practice and research. By 2011, Cameroon had signed but not ratified the Convention on the Rights of Persons with Disabilities(CRPD) and its Optional Protocol; The International Disability Alliance (IDA). Cameroon's Poverty Reduction Strategy Paper (IMF, 2010) spelt out the government's continued establishment of specialized structures for persons with disabilities in order to reduce their dependence through easing access to buildings as well as financial support.

However, Nsamenang & Tchombe (2011) argue that, despite the drafting of a practical guide on persons with disabilities, access to infrastructure and buildings that are open to public use and the creation of partnerships to enhance the attendance of children with disabilities still has a long way for actual realization.

The inability to access places in schools such as classrooms, Laboratories, the administrative blocks has become a pertinent problem to reckon with. The school environment is designed in such a way that accessibility is sometimes impossible especially for those using wheel chairs. This poses a problem since most of these disabled students have the feeling of segregation, marginalization, and exclusion and this in general can be associated to damaging psychological and physiological effects such as feelings of depression. This can consequently lead to unwanted behaviours like suicide, robbery, drug abuse and increase crime wave in the society (Tanyi, 2002).

Article 39 of the law on the protection of handicapped persons in Cameroon (1983) states that "public squares, public constructions, housing facilities do have reserved parking space and equipment for the physical condition for persons living with disabilities. A close look at Government Bilingual High School Etougebe due to space, increase in enrolment and structure of the school, inclusive infrastructural facilities are not adequately provided. This problem is observed when physically challenged students especially those with wheelchairs move around the

campus. They are some areas in the campus where they cannot access. For instance the entrance to different toilets- students and staff toilets are not only very small, but possess no facilities that can permit physically challenged students to excrete comfortably; a situation very critical nowadays when educationists and world governing bodies of education are encouraging countries to practice inclusive education. Another area of concern is the administrative blocks.

The Principal's office is located in the first floor of the tallest storeybuilding of the school premises. Just its location explains already that we climb a good number(16 stairs) of stairs before reaching to the office a situation impossible for physically challenged students especially those with wheelchairs. By so doing, physically challenged students are very reluctant to keep in touch with the principal since there is a physical barrier impossible to overcome. This poses a problem of stigmatization since most of these students hardly stay in contact with their principal whereas their valid classmates are trespassing every corridors of the school. Inclusive education practices become relatively absent in such a situation.

Again, the number of physically disabled we find on the streets is more than the population found in school especially in secondary education taking the case of Government Bilingual High School Etoug-ebe Yaoundé. This high drop out from school is due to the fact that they cannot cope with the infrastructural development ,not to talk of the inaccessibility of the landscape since the school is found on a hilly slope and also because most parents tend to abandon them to themselves. More so, because of the lack of infrastructure in this public school and the distance from their homes to the school is not only very far, but also very accidental; this results to high school dropout since most of these students stay away from classes.

### **1.3 GENERAL RESEARCH QUESTION**

A general research question is usually global in nature and serves as a guide to the research and a research problem. The general question to be researched here is:

- How does school infrastructures leads to effective inclusive education?

#### **a) Specific Research questions**

As its name implies, specific research questions are specific. These questions are:



- Is increase in enrolment of the physically challenged a function of quality inclusive infrastructure in Government Bilingual High School Etoug-ebe?
- Do school buildings promote inclusive education in Government Bilingual High School Etoug-ebe?
- Does classroom organization encourage inclusive education for the physically challenged in Government Bilingual High School Etoug-ebe Yaoundé?

**b) General objective of the study**

- To examine the extent to which school infrastructure facilitates inclusive educational practices

**c) Specific objective**

- To identify the enrolment capacity of physically challenged students in Government Bilingual High School Etoug-ebe
- To identify the extent to which school buildings promote inclusive education of the physically challenged
- To identify the extent to which classroom structure leads to effective inclusive education of the physically challenged.

**1.4 GENERAL HYPOTHESIS**

Even though there is an increase in the level of school infrastructure in Government Bilingual High School Etoug-ebe, provision for the physically challenged students is insufficient.

**a) Specific Hypothesis:**

- Enrolment of the physically challenged in Government Bilingual High School Etoug-ebe is a function of quality inclusive school infrastructure.
- School buildings promote inclusive education of the physically challenged
- Classrooms structure leads to effective inclusive education of the physically challenged.

**1.5 SCOPE AND DELIMITATION OF THE STUDY**

The scope of this study has been restricted to Government Bilingual High School Etoug-ebe in the Yaoundé sixth sub division. This school is chosen for the study because the study is

concerned with school infrastructure. The study takes into consideration the physically challenged in this secondary school and wants to examine if school infrastructure encourages inclusive education of the physically impaired.

As concerns the delimitation of this study, it has two different considerations:

### ***Thematic Delimitation***

Our work is based on inclusive education but since we cannot explore all the parameters of this topic, we were limited on infrastructural development in the Government Bilingual Secondary School Etougebe, Yaoundé. We have decided to write on this because most of our schools are designed and built to receive and accommodate the valid persons forgetting those with physical disabilities like the physically disabled in this study.

We also prefer to use the concepts of inclusion and integration because it is according to Stubbs(2008) what is implemented inclusion and integration consist in “ changing the system to fit the student, not changing the student to fit the system”. So we believe that as these physically challenged are admitted in the school, the school authority would make the necessary adjustment to better incorporate them.

### ***Spatial and Temporal Delimitation***

At this stage, the researcher ought to answer the question where and how our study will take place. In other words, there is need to delimit the work in time and space. This work is addressed to a specific group, physically disabled. In effect our study was carried out in Mfoundi Division under Yaounde VI sub division particularly in the Government Bilingual High School EtougebeYaounde. The study started from April 2016 to March 2017.

## **1.6 DEFINITION OF KEY CONCEPTS**

Inclusion: According to O’Connor (2007) can be referred to as a philosophy that focuses on the process of adjusting the home, school and a larger society to accommodate learners with special education needs.

Inclusion is the process by which schools, local education authorities, and others develop their cultures, policies and practices to include pupils (Rose, 2002). So, all children should have access to an appropriate education that affords them the opportunity to achieve their personal potential and the interest of children must be safe guarded

Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners. It involves restructuring the culture, the policies and practices in schools so that they can respond to the diversity of students in their locality. For a school to be inclusive, attitudes of everyone in the school, including administrators, teachers, and other students, are positive towards students with disabilities, Inclusive education means that all children, regardless of their ability level, are included in a mainstream classroom, or in the most appropriate or least restrictive environment, that students of all ability levels are taught as equals, and that teachers must adjust their curriculum and teaching methodologies so that all students benefit.

UNESCO(2009,p.8) defines inclusive education as the process of addressing and responding to the diversity of needs of all children, and youth, through increasing participation in learning, cultures and communities thereby reducing and eliminating exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is a responsibility of the regular system to educate all children. It involves changes and modification in content, approaches, structures and strategies with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate children.

According to Evans,(1998), inclusive education is a supplemental support for learners with special education needs and promotes the child overall development in an optimal setting. It has to include a consideration of overall organization, curriculum and classroom practice, support for learning and staff development (Ainscow, 2007).

Education: it can be defined as the process of imparting knowledge skills, values norms and culture from one generation to another in a society.

Infrastructure can be defined as the fundamental facilities and systems serving a country,

city or area, as transportation and communication systems, power plants, and schools.

According to Merriam Webster's learner dictionary (2010), infrastructure is the basic equipment and structures such as roads, and bridges that are needed for a country to, region or organization to function properly.

School infrastructure: according to Buhr (2001) school infrastructure consist of the physical framework of facilities such as classrooms, toilets, playgrounds, library, restaurants, science laboratory and computer laboratory.

### ***Handicap:***

This is a disadvantage for an individual resulting from impairment or disability that limits or prevents fulfillment of a role that is normal for that individual. This means that an individual may have difficulty performing one or more activities of daily living such as eating, showering, dressing, walking and communicating with others.

The term 'Handicap' according to AminaSen (1988) is used to describe the disadvantages imposed by an impairment or disability upon a specific person in his cultural pattern or in his psychological, physical, vocational and community activities. Rama Mani (1974) defines handicap as a sum total of the hindrances and obstacles which the disability interposes between the individual and his or her functional capacity. Justice Krishna Iyer (1991) further explains that handicap is a disadvantage for a given individual resulting from impairment or disability that limits or prevents the fulfillment of a role that is normal (depending upon age, sex, social and cultural factors) for that individual.

### ***Physically handicapped:***

According to the Hong Kong Review of Rehabilitation Programme Plan (1994/1995 to 1998/1999), a physically handicapped is a person who has a disability of locomotion and neurological origin which constitutes a disadvantage or restriction in one or more aspects of daily living activities, including work.

### ***Disability:***

This is any restriction or lack of ability resulting from impairment to perform an activity in the manner or within the range considered normal for human beings. For instance, incomplete use of arms may make it difficult to get dressed, inability to walk, talk or see peripherally.

***Impairment:***

This is defined as a loss or abnormality of psychological structure of functions. Impairment involves damage to, or poor functioning in, any part of the body or mind, such as loss of sight or limb due to disease, accident, violence or ageing.

Impairment refers to a structural loss or defect, which in some children, may be artificially restored some degree (Love & Walthall, 1977).

Impairment according to the world Health Organization (1980) can be defined as any loss or abnormality of psychological, physiological or anatomical structure or function.

Physical impairment according to S. Gray Garwood (1983) in a child is a neurological, orthopedic, or health related conditions that adversely affect the child's development and educational performance.

Love & Walthall (1977) provides guidelines to severity of impairment that are medically oriented as follows;

- Mild child can ambulate (with or without prostheses or orthoses), use arms and communicate well enough for own needs.
- Moderate child is handicapped in locomotion, self-help and communicate but not totally disabled. The child requires some special help.
- Severe child is incapacitated and usually confined to a wheel chair, complete rehabilitation may not be possible.

# **CHAPTER TWO**

## **LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

Literature review and theoretical framework are an essential feature of any research as it's creates a solid foundation for advancing knowledge. According to Webster & Watson (2002), literature review facilitates theory development, closes areas where a plethora of research exists, and uncovers areas where research is needed. In response to the above, the field of inclusive education is not exceptional. This chapter focuses on literature review and theoretical framework related to Inclusive education and school infrastructure.

### **2.1. LITERATURE REVIEW**

#### **2.1.2 INFRASTRUCTURAL DEVELOPMENT IN AN INCLUSIVE SCHOOL**

The universal design is best suited for inclusive education infrastructure. According to the UN convention on the right of persons with Disabilities, universal design means the design of products, environments, programs, and services to be usable by all people, to the greatest extent possible, without the need for adaption or specialized design. "Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where this is needed (United Nations, 2006). The first thing that meets us in most public buildings is stairs and they are often the first barrier for many children and adults to access schools or other public buildings and enjoy the services these facilities have to offer. Infrastructures are the basic systems and services that are necessary for a school to run smoothly such as lecture halls, toilets, playgrounds, and water and power supply.

In order to provide a standard inclusive school, the physical environment needs to be safe and accessible to all students, including those with physical disabilities as well as those having other disabilities. The school also needs to be structured in such a way as to minimize the effects of individual learning differences on achievement. Many of the issues relating to the design and layout of the physical environment can only be addressed at the planning stage for school buildings and are more of concern for educational authorities, builders and designers but if the schools are already constructed improve needs with regards to an inclusive environment have to

be considered.

When we are talking of infrastructure, we are referring to the school environment, classrooms, and sitting position in the class. Article 39 of the law on the protection of handicapped persons in Cameroon (1983) states that ‘public squares, public constructions, housing facilities do have reserved parking space and equipment for the physical condition for persons living with disabilities but looking at Government Bilingual High School Etoug-ebe due to space, increase in enrolment and structure of the school, inclusive infrastructural facilities are not adequately provided.

According to schoeman (2013) School infrastructure is a complex issue involving more than one government department and also provincial governments. Critical for children with disability is that the programme also has to ensure that all new schools as well as those that are being refurbished should have universal design features. According to the author this is not emphasized often enough.

Laws, legislations and policies have been put forward to encourage the education of these children in regular schools. In most cases these laws are made without taking into consideration the training capacities of the teachers, suitable physical school environment in terms of infrastructures for accessibility, the large classroom sizes in relation to the student/teacher ratio and most importantly instructional materials and resources (Fola, 2008).

## **Mobility**

According to Mackie (1952-1953) one way of establishing a sense of independence for a disabled child is to provide him with an environment in which he can move about with minimum help from others. Architectural barriers encountered in most conventional school buildings create difficulties for students who are confined to wheelchairs and litters. Even the child who uses crutches may encounter restrictions in traditionally designed schools. The major consideration in designing special facility for the disabled child can be expressed in terms of those mobility limitations imposed by wheelchair. Tucker (1964) specifically notes that dimensions and turning radius must be considered as well as limitations in the range of motion of persons confined to

wheelchairs. However, if geographical features of the school prevent accessible entrances or older buildings are being modified, there must be the installations of wheelchair ramps.

Wheelchair ramp is an inclined plane installed in addition to or instead of stairs. Ramps permit wheelchair users as well as people pushing strollers carts, or other wheeled objects, to more easily access a building. A wheelchair ramp can be permanent, semi-permanent or portable. Permanent ramps are designed to be bolted or otherwise attached in place. Semi-permanent ramps rest on top of the ground or concrete pad and are commonly used for the short term. Permanent and semi-permanent ramps are usually aluminum, concrete or wood. Portable ramps are usually aluminum and typically fold for ease of transport. Portable ramps are primarily intended for home and building use but can also be used with vans to load an unoccupied mobility device or to load an unoccupied mobility device when both the device and the passenger are easy to handle.

Ramps must be carefully designed in order to be useful. In many places, laws dictate a ramp's minimum width and maximum slope. In general, reduced incline rises are easier for wheelchair users to traverse and are safer in icy climate. However, they consume more spaces and require traveling a greater distance to go up. Hence, in some cases it is preferable to include an elevator (a vertical transportation that moves people or goods between floors of a building).or other type of wheelchair lift ( a fully powered device designed to raise a wheelchair and its occupant in order to overcome a step or similar vertical barrier). In many countries, wheelchair ramps and other features to facilitate universal access are required by building code when constructing new facilities which are open to the public.

American standards Association (1961) and Goldsmith, (1963) represent the essential criteria for ramps collected from a number of major sources.

For two-way traffic, curbed aisles each about 30 inches wide, divided by the hand rails are suggested with the curb at least 2 inches high and 4 inches wide as a safety factor in case of loss of control.

Handrails at a suitable height for the age groups using the facility should be provided on



both sides of the ramp.

The ramp surfaces should be of a non-slip material such as broom finished concrete.

With all ramps installed, the physically disabled student would be able to move independently and safely along key routes outside the building or between buildings. The pavement materials for major circulation routes should be fixed and firm with filled joints and not slippery when wet. After providing for mobility around buildings as well as to a major entrance, the corridors and hallways in a facility serving the physically disabled should be eight feet wide to allow for the simultaneous passage of two- wheel-chairs. Smaller or access hallways need not to be as wide as the main passage-ways but should allow for the complete revolution of a wheelchair which usually requires five feet.

There has been some controversy as to whether or not handrails should be used in school corridors. Schoenbohn (1962) feels that handrails are essential. While Wirtz (1965) feels they may act as a deterrent in a child's learning to use his wheelchair or crutches properly. While each position has merit, experience at Human Resources School indicates the elimination of handrails in corridors has encouraged independence and proper use of prosthetics and more closely approximates the conventional facility.

While it would be most desirable to eliminate stairways into buildings serving the physically disabled, obviously this is not always possible as site space limitations might dictate high rise construction in new buildings and already existing facilities might be multilevel as the case of Government Bilingual High School Etoug-ebe. Scheduling classes that include physically disabled on the first floor of a multilevel building, whenever possible, can solve some mobility problems. Goldsmith (1963) and Yuker, Cohn & Feldman, (1966) however think that provisions must be made to increase the mobility of the semi-ambulant by installing semi-ambulant stairways can be designed to minimize safety hazards. In case it is the normal stairs that are found outside handrails should be installed for those physically disabled without wheelchair can support themselves while climbing and one handrail that extend at least 18 inches beyond the top and bottom stairs should be provided (American Standard Association, 1961).

### **The school environment**

Foleng et al. (2007) defined environment as our surrounding, the air, vegetation, building, furniture, vehicles, people, water, and landscapes like Mountains, valleys, river and others. According to these authors, in a school environment, one would expect to find lecture halls, playground, toilets, school farms etc. they explain that the physical environment comprises of facilities and infrastructure at the disposal of the teachers and students to be used for their teaching and learning activities. According to Garwood(1983) if they are to receive the physically disabled such schools must eliminate architectural barriers for such barriers make the children dependent, limit opportunities for experience and contribute to lower self-esteem. Eliminating architectural barriers consist of modifying buildings or facilities so that they can be used by people who are disabled or have physical impairments. An example of a barrier free design would be installing ramps for wheelchairs alongside or in place of steps. In the case of new buildings, however, the idea of barrier free modification has largely been superseded by the concept of universal design, which seeks to design things from the outset to support easy access.

According to Mackie (1952-1953), one way of establishing a sense of independence for a disabled child is to provide him with an environment in which he can move about without minimum help from others. Architectural barriers encountered in most conventional school buildings create difficulties for students who are confined to wheelchairs and even the child who uses crutches may encounter restrictions in a traditionally designed school. According to circular letter No 002/LCC/MINTP/MINH DU/MINAS of 16<sup>th</sup> July 2013 relative to the facilitation of accessibility of handicapped persons into public buildings and also Article 39 of the Law on the protection of handicapped persons in Cameroon ( 1983) states that “ public space and buildings should be built in such a way that the physically challenged could have access into them but the case of Government Bilingual High School Etougebe, the school and the physical environment would not permit a physically disabled who is using wheelchair or crutches to cope in such a school because of the infrastructure. All entry and exit in the school should have ramps, hallways and handrails.

The school environment should provide safe and accessible equipment for all students. Physical access to the school building, classrooms and facilities is essential to ensure all students can physically gain access to the educational environment and be included in all appropriate

activities alongside their peers. This is especially relevant for students with physical disabilities and adequate access must be provided as required, including the provision of ramps and lifts, and adapted toilets. Toilet height should permit easy transfer and toilet stalls should be equipped with handrails and the child's wheelchair should fit easily under sinks to enable him or her wash the hands after using the toilet. The classroom should be physically safe and comfortable. It should be adapted to the cognitive and physical level of all children and the atmosphere and structure of the room should promote active and independent learning and exploration.

According to Sutton & Sutton (1995), the environment is a barrier to the physically disabled when not being accessible enough for them to move, function and communicate as effectively as people without impairment. This according to Sutton and Sutton (1995), is because a great deal of the environment is designed by non-impaired persons and a student with his or her wheelchair is said to be disabled if the environment is not designed for students with wheelchairs.

### **The School Buildings**

The school building is supposed to ensure full access for all learners and in particular for children and adolescents with disabilities. This not only includes the classroom, but relates to the school canteen, school administration (head teacher's room/school office, staff room, library etc.), workshops or the school garden as well. For all rooms aspects such as circulation space (for users of wheelchairs, walking aids, and walking sticks), seating and workplace design (furniture and fixtures, space requirements) along with the possibility to provide orientation have to be taken into account.

When addressing the issue of the limited usability and accessibility of school toilets commonly considered a major "weakness", cultural, religious as well as disability-related aspects are to be united, Children and adolescents with disabilities may need special retreat or therapy rooms, where they can have some time off to better cope with the requirements of the school day. These rooms, thus, have to be incorporated into the planning of school buildings as well.

To achieve inclusive education, appropriate school buildings such as toilets seats or chairs, playground, doors and class should be designed in a way that also considers children with

disabilities (Sagahutu et al, 2013).

Freeing a building of barriers means:

- Recognizing the features that could form barriers for some people.
- Thinking inclusively about the whole range of impairments.
- Reviewing everything- from structure to smallest detail.
- Seeking feedback from users and learning from mistake

## **Classrooms**

Garwood (1983) said careful planning of classroom layout is essential in every school and certain basic features of efficient design are common to the education of all types of students. The size of classroom areas on a per pupil basis in a school including disabled students should be larger than in a conventional school. There must be sufficient space in the classroom for manoeuvring wheelchairs and for walking especially with the physically challenged using crutches, for extra items of equipment, and for wheelchair storage in those cases in which the students can comfortably sit on a chair. Garwood (1983) goes further to mention that in the classroom, furniture and equipment should be spaced far enough apart to allow passage of a wheelchair, a student on crutches or a walker at least 32 inches is needed for the passage of a chair or walker. Loose throw rugs or slick tile flooring should be avoided to prevent slipping and falling.

With regards to classroom shape, Wirtz (1965) claims that classrooms should be closer to square than rectangular shape to provide wide adequate aisle space. Aisles should be at least 4 feet 8 inches wide to permit two wheelchairs or two pupils using crutches to trespass with safety, and to provide slightly more space than usual for getting in and out of chairs (Educational Research Services, 1963). In designing a new building, plans should be made for two doors in each classroom. One should lead in from the hall and a second lead out of the building. Barnes, Berrigan & Biklen, (1978) found that all entrances and exits have to be at least 33 inches wide and doorknobs, light switches, drinking fountain should be within easy reach of the child in a wheelchair. Layout of fixed and movable classroom equipment such as blackboards, work counters and benches, chairs, requires a few special considerations. Attention should also be given to ensure that all doorways are wide enough to accommodate wheelchairs and that there is

adequate space for wheelchairs to be manoeuvred in classrooms. Those students with physical disabilities may also benefit from features such as adapted chairs, or tables that are at the correct height for a wheelchair. Schoenbohn (1962) notes that blackboards or chalkboards may be installed with the lowest edge approximately two feet from the floor for use by seated students but to provide better legibility and enable teachers and pupils to use the bottom portion of the board, blackboards may taper out from the wall at the bottom from 4 to 6 inches. Although accessibility to all areas and equipment is a necessity, the children should learn that they must solve problems and initiate some adjustment to the environment because the world will not totally adapt to them.

## **Library**

A library is an institution which holds books and or other forms of stored information for use by the public or qualified people. Schoenbohn (1962) suggests that library facilities for school should be planned much like public school library, but with certain modifications like the installation of ramps at the entrance of classrooms.

## **Sanitary Facilities (toilets)**

Goldsmith (1963) says in a school with physically disabled students in attendance, the location and layout of sanitary facilities are of prime importance. Toilet facilities should be easily accessible and equipped so that independent functioning is made possible. The sanitary areas should be centrally located in the school rather than placed at the end of corridors. Such an arrangement should prove convenient to all students. In already existing structures, it is usually not necessary to modify the entire sanitary facility a reasonable practice is to provide adapted stalls in proportion to the number of physically disabled students in the school population. The American Standard Association (1961) recommends that sanitary facilities in any public building have at least one toilet enclosure that can accommodate physically disabled individuals particularly those in wheelchairs. The adapted enclosure should include the wider stall which should be incorporated in schools where disabled children need assistance. This extra width allows the aide ample space to assist the child in transferring from the wheelchair to the bowl. A water closet designed to allow for frontal approach of a wheelchair without obstructing the footrest.

## **2.1.3 CHRONOLOGY OF THE LEGAL FRAMEWORK CONCERNING INCLUSIVE**

### **EDUCATION**

<b>Year</b>	<b>Policy document</b>	<b>Content of the documents</b>
1960	United Nations Convention Against Discrimination in Education [OHCHR] (Articles 1, 2, 3 & 6)	Elimination and prevention of discrimination in education by promoting equal opportunities.
1971	United Nations Declaration on the Rights of Mentally Retarded Persons [OHCHR] (Article 2)	Promoted individual rights to education, training, rehabilitation and guidance, to enable to develop to maximum potential.
1975	United Nations Declaration on the Rights of Disabled person [UN]	Recognize the rights and the needs of all people with disabilities for the first time and promoted integration of disabled persons
1981	Sundberg Declaration(UNESCO)	The declaration states that “every disabled person must be able to exercise his fundamental right to have full access to education”, to be integrated through education and training and appropriate resources and to be encouraged to use their creativity
1989	Tallinn Guidelines for Action on Human Resources Development. [UN]. (Section D)	The goal was promotion of education and training. Recommendations are that cost- effective alternatives should be developed and implemented.
<b>Year</b>	<b>Policy document</b>	<b>Content of the documents</b>
1990	Convention on the Rights of the Child [UNICEF](Article 23)	Stressed the rights of the child. The child has the right to “full and harmonious development of personality and preparation to live a responsible life in a free society”.
1990	World Declaration on Education for all [UNESCO, Jomtien)	The declaration moves closer to a social model of disability with Inclusive concepts. It stresses universal access and equity- Inclusion.
1993	United National Standard Rules on Equalization of opportunities for persons with disability. [UN Enable]	The rules expanded the scope of rights to access in society for people with disability. Rules expanded on cultural, recreation, and sport and religious participation.
1994	World Congress on Special Needs Education, Salamanca.(UNESCO)	The Salamanca statement set policy agenda for Inclusive Education on a global basis and represented linguistic shift from integration to inclusion

		as a global descriptor.
1995	World Summit for Social Development, Copenhagen(UN)	The summit established specific links between education, poverty and disability, and placed people at the centre of development issues.
2000	E d u c a t i o n for All (EFA) Framework for Action (UNESCO, Dakar).	The Framework for Action includes identification and enriching the care and education of children with special education needs.

(Adopted from Peters, 2007, p. 101).

According to Peters (2007) these documents were chosen because of two reasons, namely, substantive content relating to education and disability, and substantial impact on establishing rights of people with disabilities. It should be noted that international involvement with disability began before 1960 with the Universal Declaration of Human Rights in 1948 (Peters, 2007). The fundamental policy change from Human Rights to non- discrimination in Education was brought about during the Convention against Discrimination in Education in 1960. The policy on Discrimination against Education was a broad one, and in 1971 the Declaration on the Rights of Mentally Retarded persons was enacted and this policy asserted individual rights. In 1975, the policy on Declaration on the Rights of Disabled persons was enacted and this was a landmark document as it recognized the rights and needs of all disabled people. The Sundberg Declaration in 1981 was about recognizing that every disabled person has full rights to education. This was followed by World Programme of Action Concerning Disabled Persons in 1982 which was a representative of Sundberg Declaration. The three main goals were prevention, rehabilitation and equalization of opportunities. In 1989 a meeting was held in Tallinn and Guidelines for Action on Human Resources Development were formulated and the guidelines re-established that due regards must be paid to education.

The Convention on Rights of the Child in 1990 addressed the full development of the child. The landmark was in 1990 with the World Declaration on Education for All (EFA) in Thailand which moved closer to a social model of disability with Inclusive concepts. This was

followed by Standard Rules on Equalization of Opportunities for Persons with Disabilities in 1993. The rules expanded the scope of rights to access in society for people with disabilities.

The World Congress on Special Needs Education in Salamanca in 1994 was unique as it set a policy agenda for Inclusive Education on a global basis. In the year 2000 in Dakar, the sixteenth (16) education for All Framework of Action was formed. This document is very important since provides a chronological evolution of inclusive education.

#### **2.1.4. Critics of Inclusive Education**

Inclusive Education is not a simple concept and as such it brings a lot of criticism. As a researcher it is unwise to ignore criticism. Engelbrecht & Green (2007), put forward two reasons why it is unwise: criticism is bound to undermine the effectiveness of initiatives to introduce Inclusive Education and can create a climate of both active and passive resistance, and that those with differing opinions perceive issues from another perspective, which allows them to notice concerns that ‘insiders’ may have failed to notice. As such they are in a position to make a positive contribution towards Inclusive Education. Constructive dialogue with critics regarding Inclusive Education provides valuable opportunities for self-reflection. Proponents of Inclusive Education tend to proclaim that it is the ultimate route to a new and better world. This is an overstatement.

Engelbrecht & Green (2007) urge that history has shown that it is far from obvious how to create a better, more inclusive and more just society, as promising directions often prove to have surprising consequences or become derailed for unanticipated reasons. In light of this, it is naïve to think that Inclusive Education is the only strategy that guarantees inclusion of the excluded.

Critics of Inclusive Education contend that inclusion infringes on the rights of pupils without disability in mainstream schools. They argue that inclusive practices hinder the pace at which instruction is delivered in class as special considerations are given to LSEN. This is supported by research by Ali et al. (2006). They state that teachers stressed their concern that as



more students are included, they would need additional tools and coping skills to deal with the social and emotional problems that accompany Inclusive Schooling. This implies that the pace at which instruction is delivered in class is slow as teaching requires pupils' individual attention. This statement is qualified by O'Connor (2007) as she states that certain learning difficulties, particularly those that are severe or profound in nature, might not under present conditions be adequately provided for in mainstream schools.

In the analysis of the current state of research on the accessibility of the educational systems in the countries of the global south, methodological and applied publications (scientific journals, project papers and evaluation reports, good practice documents etc.) what becomes obvious here is that this dimension of school-related inclusion, especially when it comes to possible barriers, has not received much attention: Apart from a number of project reports, country reports and comparative studies by international organizations, the amount of available empirical data is rather limited. Despite an extensive search through publications across various disciplines (architecture, civil engineering, educational and rehabilitation science) and across various regions, covering countries in Africa, Latin America and Asia, the list of findings turns out to be remarkably short. This, though, does not come as a surprise, given the fact that even in the global north this topic as it relates to school tends to be widely neglected in research and politics.

The lack of data and information available on the topic comes together with the attitudes and fragmentary knowledge on the part of the decision makers who deny these groups the right to education, often on the pretext that they do not meet the requirements to attend school. Thus, a paradigm shift is necessary when it comes to investigating the reasons for dropping out of school: children are not able to change the school, but the schools can be adapted in such a way as to ensure full access to education for all children regardless of limitations or impairments (Unicef, 2013).

Lindsay (2003) claimed that UNESCO's Salamanca Statement (1994) contains many contestable features: an overemphasis on the uniqueness of individual learners, a lack of clarity as to what are a regular school, and an imbalance of emphasis on the social model compared with the medical model. With regard to the latter point, while supporting the trend away from a medical (within child) model to a social (environmental) model, Lindsay felt that the recent

narrow adherence to the social model has promoted the notion that inclusion is solely a question of rights and that the question of its efficacy in practice is irrelevant. He argued that it is not a matter of one or the other model but of finding the right balance between the two and of understanding how each interacts with the other. He further argued that the best way of enhancing children's rights is through rigorous, substantial research projects that demonstrate effectiveness.

The issue of what model is the most appropriate in determining the way forward in inclusive education was discussed by Clark et al. (1995). Until recently, they claimed, special education has been dominated by two paradigms: the psycho-medical one, which focuses on deficits located within individual students, and the socio-political one, in which the focus is on structural inequalities at the macro-social level being reproduced at the institutional level. To these two paradigms, they added a third paradigm, an 'organizational paradigm', in which special education is seen as the consequence of inadequacies in mainstream schools and, consequently, ways should be found to make them more capable of responding to student diversity. This can be achieved through such means as schools implementing findings from research into effective teaching, operating as problem-solving organizations, and supporting teachers through the change process.

In his critical examination of inclusive education, Hegarty (2001) made three main points. Firstly, he argued that if the notion of inclusion is to have any utility it must signify something other than excellence in education or good schools, which some definitions seem to highlight. Secondly, he asserted that for some Students With Special Education Needs being included in a regular school environment is neither possible nor desirable (for example; students with a visual impairment will need mobility training outside a regular classroom). And, thirdly, he claimed that while the notion of inclusion is important, an over-emphasis on it runs the risk of distorting the hierarchy of values in education generally, which has as its core the twin objects of developing young people's potential and equipping them for adult life.

Several writers have criticized the employment of what they perceive to be rhetoric on behalf of inclusive education, at the expense of empirical evidence. Thus, with a US frame of reference, Fuchs & Fuchs (1994) argued that 'the field's rhetoric has become increasingly

strident and its perspective increasingly insular and dissociated from general education's concerns'. They felt that radical proponents of full inclusion, such as Skrtic et al. (1996) and Lipsky & Gartner (1996, 1999) want nothing less than the elimination of special education and its continuum of placements.

In a similar vein, other US writers asserted, like Kavale & Mostert (2003), that the ideology of full inclusion has influenced policy and practice disproportionately to its claims of efficacy, with its proponents often rejecting empirical evidence in favour of the postmodern. Likewise, Sasso (2001) and Kauffman (1999) have presented strong oppositions on what they perceive as postmodern and cultural relativist doctrines in special education in general and inclusive education in particular. Kauffman (1999) went on to question the validity of some assumptions made by 'full inclusionists', suggesting they have 'lost their heads about place, about the spaces occupied by people with disabilities' and that physical access does not necessarily imply instructional access. At the very least, these writers urge caution in the implementation of full inclusion. Preferably, as Kavale & Mostert (2003) argued, empirical evidence should be the cornerstone of deciding where students with special needs should be served. Or, as Sasso (2001) suggested, rather than treating inclusion as an outcome measure, it would be more logical and helpful to view it as a treatment variable.

Other criticisms have been advanced. These include the challenge of Fuchs & Fuchs (1994) to the view that the mainstream can incorporate students with disabilities when it has so many difficulties in accommodating existing student diversity. From an English perspective, Norwich (2002) adopted a similar, but less critical, position, arguing that there is properly a duality about the field of educating SWSN. While the field should have integral connections to general education, its distinctiveness should also be recognized. This relationship, he argued, is best conceptualized as a 'connective specialization', a term which refers to an interdependence of different specialism and a sharing of a relationship to the whole.

Norwich felt that his position stood somewhere between both the 'separatist' and the 'radical or full inclusion' positions. Hall (2002) has presented a more radical view, arguing that proponents of inclusion overlook the value of the 'disability culture' in fostering opportunities for students with disabilities to associate with and learn alongside others who share similar identities

and life experiences. She concluded by suggesting that changes to the existing special education system, rather than a movement to full inclusion, would be more effective in supporting the disability culture.

However, according to O'Connor (2007) when all is said and done, the advantages of inclusion outweigh the disadvantages and this redefines the roles of the special school in an Inclusive setting.

### **2.1.5 Laws and regulations for persons with disabilities in Cameroon**

To better understand the notion of persons with disabilities, we should define the terms disability, person with a disability, impairment, inability, invalidity, physical Disability as outlined in Section 2 of No 2010/002 of April 13, 2010 on the protection and promotion of persons with disabilities. Thus, disability means a limitation of the opportunities of a persons with impairment to fully take part in an activity in a given environment and as concerns the notion of persons with disabilities, we should consider any person unable to ensure by himself all or part of the necessities of a normal individual or social life, due to a physical, mental or not congenital impairment. The enactment of Law No 2011/018 of July 15, 2011 on the organization and promotion of sport and physical activities including institutions for the re-adaptation of persons with disabilities creates the Cameroonian National Paralympics Committee and calls for the creation of sports federations for the disabled.

In addition, the publication of the Practical Guide on accessibility of persons with disabilities to infrastructures and public buildings launched on April 8, 2009 and accompanied by the signing of the Joint Communiqué MINAS/ARMP to ensure its proper compliance with the technical specifications by project owners and project owners' delegates. Also, the publication of the Practical Guide on accessibility of persons with disabilities to education presented on February 1<sup>st</sup> 2010; provision of schooling for children with disabilities and those born of poor parents with disabilities with further implementation of joint circular letters No 283/07/LC/MINESEC/MINAS of 14 August 2007, signed with Ministry of Secondary education and the ministry of Social Affairs respectively on August 2, 2006 and August 14<sup>th</sup> 2007, to

facilitate the admission of students with disabilities and those born of poor parents with disabilities in government High schools, and their participation in public examinations.

The promotion of socio-professional/ economic integration of persons with disabilities by the recruitment of persons with disabilities on contract in the MINFOPRA as temporary agents in public administration, within the framework of the pilot operation launched in January 2005 by the MINAS and the recruitment of one hundred and ten(110) teachers with disabilities holders of CAPIEMP or TEACHER'S GRADE ONE CERTIFICATE for the years 2010 and 2011 within the framework of recruiting of general education teachers on contract in the MINEDUB not forgetting the granting of vocational training and learning scholarships to vulnerable persons with disabilities by MINEFOP under the training year 2011/2012.

Nevertheless the signing of the joint circular letter N° 002/MINTP/MINMAP/MINDUH/MINAS of 16<sup>th</sup> July 2016 relative to the facilitation of the accessibility of persons with reduced mobility in the built environment help enormously to promote inclusive education More so, the opening of the National Institute of Social Work( INTS), created by Decree No 2006/302 of September 21<sup>st</sup>, 2006 and the integration into the course programme of that institute, specialized modules to promote social development and ensure the delivery care of some specific cases of deficiencies.

### **2.1.6 Inclusion's Origins in Special education: the shift from integration to inclusion**

Inclusion as we know it today has its origins in Special Education. The development of the field of special education has involved a series of stages during which education systems have explored different ways of responding to children with disabilities, and to students who experience difficulties in learning. In some cases, Special education has been provided as a supplement to general education provision; in other cases it has been entirely separated. In recent years, the appropriateness of separate systems of education has been challenged, both from a human rights perspective and from the point of view of effectiveness (UNESCO, 2007).

Special education practices were moved into the mainstream through an approach known as "integration". The main challenge with integration is that "mainstreaming" had not

been accompanied by changes in the organization of the ordinary school, its curriculum and teaching and learning strategies. This lack of organizational change has proved to be one of the major barriers to the implementation of inclusive education policies. Revised thinking has thus led to a re-conceptualization of “special needs”. This view implies that progress is more likely if we recognize that difficulties experienced by pupils result from the ways in which schools are currently organized and from rigid teaching methods. It has been argued that schools need to be reformed and pedagogy needs to be improved in ways that will lead them to respond positively to pupil diversity – seeing individual differences not as problems to be fixed, but as opportunities for enriching learning.(unesco,2005).

Inclusive Education can be a difficult concept to understand (Amstrong & Spandagou, 2011) and just a lack of understanding of what it means is a barrier to inclusion in and out of itself (Baglieri et al, 2011). However, a troubling ambiguity is that the term inclusive education is often used to describe only the placement in a mainstream classroom rather than a child’s full participation in all aspects of the educational setting Beckett (2009), Berlachand & chambers (2011), Curcic(2009), Fisher(2012), Lalvani(2013); and being physically present in a mainstream setting does not automatically result in inclusiveness(Pijl &Minnaert, 2011). Inclusive education stems from a process ranging from the aspect of inclusion, integration and inclusive education.

According to Tremblay (2008), inclusion is a holistic vision and is based on the right of all learners to a quality education that meets basic learning needs. This right based philosophy is outlined in international Declarations, conventions and reports relevant to inclusive education. In order to realize these rights, the international education for All (EFA) movement has worked to make equity and quality basic education available to all learners. Inclusive education takes the EFA agenda forward by finding ways of enabling schools and other centres of learning to serve all learners in their communities participate in learning whether in specialized schools or inclusive schools focusing particularly on those who have traditionally been excluded from educational opportunities as a result of one impairment or disability or the other. Inclusion in education is recognized as a basic human right and the foundation for a more just and equal society (European Agency for Development in Special Needs Education, 2012).

Inclusion means participating in school life in all aspects (Smith et al, 2001: Kirk et al, 2003). It requires the educational system to meet the needs of the child as normally and inclusively as possible rather than the child with physical challenges being made to adapt to suit the needs of the system (Kluth, et al, 2001; Evans, 2000).

According to UNESCO (1994) inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning culture, and communities and reducing exclusion within and from education. It involves being included in school as well as in the community.

UNESCO (2001) describes inclusion as being part of a much larger picture than just placement in the regular class within the schools. It is being included in life and participating using one's ability in day to day activities as member of the community. Added to this, the process of inclusion contributes to the academic development and socio economic welfare of the child and its family, enabling them to reach their potentials and flourish.

UNICEF (2010) definition of inclusion is really about how well child-friendly schools are doing at making practical changes so that all children, regardless of their background or ability, can succeed.

Tomko (1996) says that inclusion involves adjusting and changing the practice in the home, the school and the society at large. This is also supported by Etscheidt (2002) who asserts that inclusion is based on the belief that everyone lives and works in inclusive communities, with people of different races, religions and various disabilities. Inclusion can occur in schools, churches, playgrounds, workplaces and in recreation areas. An inclusive society is therefore one which individual differences among the members is respected and valued (Tomko, 1996, Anifto, & McLuskie, 2003).

Wiles & Bondi (2011) argued that inclusion involves keeping special needs students in regular education classrooms and making support services available to disabled learners rather than bringing the students without support devices.

Daniels & Garner (1999) defined inclusion as a process in which a child with disabilities is educated together with children who do not have these difficulties. At the same time the child is provided an equal opportunity to be recognized on the basis of their merits, regardless of how big cognitive, physical, social or emotional challenges those may be.

The Dutch coalition on Disability and Development argues that inclusion in education is a process of enabling all children to learn and participate effectively within mainstream school systems. It does not segregate children who have different abilities or needs.

According to Goodley (2007), inclusion relates to much more than adapting education to specific needs of particular students. It also highlights the extent to which educational policy, pedagogy and teaching practice are “socially just” in kindergartens schools, colleges, universities, and wider community. Inclusion demands changes at the:

Macro Level: government policies and initiatives promote the social and educational inclusion of people who have historically been marginalized.

Meso Level: educational institutions develop inclusive forms of organization, curriculum and pedagogy which include learners.

Micro level: teachers took critically at their practice in order to include learners within the classroom.

Contrarily, the element of inclusion is not individualization but the diversification of the educational provision and the personalization of common learning experiences in order to achieve the highest degree of participation of all students, taking into account their individual needs. Also, models of inclusion believe that all children are different and all children can learn. There is nothing about a child that needs to be fixed in order to meet the individual needs of all learners (Harman, 2000).

The UNESCO Policy Guidelines (2009) on inclusion in education set out the following justification for working towards inclusive practices and educating all children together.

Educational justification: inclusive schools are able to change attitudes towards diversity



and therefore form the basis for a society that is just and void of discrimination.

Economic justification: It is cost effective to educate all children together rather than have a complex system with different types of schools and ‘specializing’ in the different groups of children.

The concept of integration came in the 1980s as an alternative to special education curricula, with the objective of placing students identified as having special needs in mainstream schools (Operrti & Belaczar, 2008). Integration designates the fact that disabled people of all ages and those learners with special education needs are being placed in mainstream educational setting with some adaptations and resources but on the condition that the disabled persons or learners with special education needs can fit with preexisting structures, attitudes and an unaltered environment. For example, the child is required to fit in to what already exist in school (Saunders & Kardia, 2009). Integration implies that the child has to change to be able to participate in the existing school system. Models of integration presuppose that there is nothing wrong that must be fixed in order to fit into the present system. The support and adaptations that occur are put in place to force a child into an existing classroom setting and the child must adjust to these adaptations.

Thus after the 1990s, the scope, objectives, contents and implication of inclusive education changed considerably in relation to integration. This was principally due to the recognition that the integration models were solely based on closing special education schools and inserting students into mainstream schools and the curricular did not respond to the diversities of learners’ expectation and needs (Operrti & Belaczar, 2008).

We distinguish between inclusive education on the one hand and educational integration through special education and special schools on the other hand. Inclusive education is different from integration as the latter only denotes the placement of disabled pupils in the mainstream. Inclusion is referred to as changing the attitudes and practices of individuals, organizations and associations so that they can fully and equally participate in and contributes to the life of their community and culture.

According to Pierre Fonkoua, there exists integration in a mainstream class. Here the mixture of valid learners with their invalid classmates is done in the same classroom. In this

situation, the learner with disabilities will have to encounter those with no disabilities. Thus, the learner with disability will learn with the assistance of his or her surrounding and socialize with the new environment. He will be submitted to the same learning conditions and activities as for the valid learners but with a little modification. It should be noted that this type of integration is suitable for learners presenting mild or little handicap or impairment.

Another type of integration in the same school according to Pierre Fonkoua concerns learners with great and or extreme handicap. Integration with such learners will be done in the same school but in separate classrooms with their valid classmates. Their enrolment in the ordinary schools offers them the opportunity to socialize, since they will constantly stay in contact with their valid classmates during free periods or break time.

Avramids & Norwich (2002) and Biklen (2000) thinks inclusive education requires recognizing the right of every child without exception to be included and adapting to the environment and teaching approaches in order to ensure the valued participation of all children. Inclusive education is a growing universal concern and challenges the process of educational reforms in both developing and developed regions (Operti & Balalcazar, 2008). As more countries move to a wider definition of inclusive education, diversity is recognized as ‘‘natural’’ in any group of learners and inclusive education can be seen as a means of raising achievement through the presence (access to education), participation(quality of the learning experience) and achievement(learning processes and outcomes) of all learners.

Globally, there is a clear move towards inclusive practices and a wide range of agreements on its key principles which include valuing all, respect of differences and promoting the participation of all learners (European Agency for Development in Special Need Education, 2010).

Barton (1997) says inclusive education is part of a human rights approach to social relations and conditions. The intentions and values involved are an integral part of a vision of the whole society of which education is a part. Therefore the role education plays in the development of inclusive society should not be neglected. It is therefore important to clarify our doubts that inclusive education is not about ‘‘special’’ children and it is not about ‘‘dumping’’ pupils into an

unchanged system of provision and practice. Rather, it is about how, where and why, and with what consequences, we educate all pupils.

UNESCO (2005) sees inclusive education as a process of addressing and responding to the diversity of needs of learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes in content, approaches structures and strategies, with a common vision which covers all children within appropriate age range. It embodies the conviction that it is the responsibility of the mainstream education system to educate all children. Inclusive education seeks to address the learning needs of all children, regardless of their physical, intellectual, social, emotional, linguistic differences. They should provide for disabled and gifted children, street and working children, children from any population, children from linguistic, ethnic or cultural minorities and children from other marginalized areas or groups. In practice, the UNESCO's definition means that one ministry is responsible for the education of all children in their region; there is a diverse mix of students in class; teachers use classroom strategies that respond to diversity, such as multi-level instruction, co-operative learning, individualized learning modules, activity- based learning and peer tutoring. There is collaboration between teachers, administrators and others in responding to the needs of individual students.

Inclusive education is a right based approach to educating children and includes those who are subject to exclusionary pressures. Inclusive education creates a learning environment that is child centered, flexible and which enables children to develop their unique capacities in a way which is conducive to their individual styles of learning. In inclusive education a change is needed to address accessibility and challenge attitudes of managers, staffs, pupils, parents and the local community.

UNESCO (2009) perceives inclusive education as a process of transforming schools and other centres of learning to accommodate all learners including boys and girls, learners from ethnic and linguistic minorities, rural population, those infected or affected by HIV and AIDS, those with disabilities and difficulties in learning and as well as provide learning opportunities for all.

UNESCO (inclusive education, division of Basic education, 2011) refers to inclusive education as schools, centres of learning and educational systems that are opened to all children. For this to happen teachers, schools and systems may need to change so that they can better accommodate the diversity of needs that pupils have and that they are included in all aspects of school-life. It also means a process of identifying any barriers within and around the school that hinder learning, and reduce or remove these barriers.

In addition, inclusive education is seen as central to human rights and equal opportunities and a priority policy objective of liberal democracies and the proponents of inclusive schools call for a restructuring of the school to accommodate all learners and advocate radical changes of school infrastructure and in most cases mobility of wheelchairs and increase the size of the doors (Ainscow, 1991).

Inclusive education is, however, an increasingly contentious term that challenges educators and educational systems to think about the work of teaching and learning in different ways and from varied perspectives not neglecting the infrastructure to enable access to these children. According to Grima-Farell, Bain & McDonagh (2011), “inclusive education represents a whole-school concern and works to align special education with general education in a manner that most effectively and efficiently imparts quality education to all students”. The issue of equity has been a major force internationally, underpinning the movement towards a more inclusive educational system and the way in which inclusion is defined (Forlin, 2012) but forgetting to take into consideration the infrastructure aspects of these schools.

Added to this, Waruguru (2001) emphasized on the fact that inclusive education requires identification, reduction or removal of barriers within and around the school that may hinder learning. Teachers and school systems need to modify the physical and social environment so that they can fully accommodate the diverse learner’s needs.

Kochoung (2010) says inclusive education is all about transforming educational system to accommodate the needs of children with special needs. According to him, it is not just about inserting children with disabilities into existing structures but adapting the structures to reflect their differences.

Lipsky & Gartner (1996, 1999) described inclusive education as students with disabilities having full membership in age-appropriate classes in their neighbourhood schools, with appropriate supplementary aids and support services. But in recent years, the concept of Inclusive education has been broadened to encompass not only students with disabilities but also all students who may be disadvantageous in one way or the other.

Save the children (2002) defined inclusive education as a process of increasing the participation of all students in schools, including those with disabilities. Save The Children (2002) also argues that inclusive education is about restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in their locality. This means that all children, including children with disabilities, not only have access to schooling within their own community, but that they are provided with appropriate learning opportunities to achieve their full potential. However, it is also essential that parents, children and communities are supported to change their attitudes and understanding of why inclusive education matters, as this is what will sustain change.

The Agra seminar (1998) definition states that inclusive education is broader than formal schooling. It includes the home, the community, non-formal and informal systems. It acknowledges that all children can learn. It enables education structures, systems and methodologies to meet the needs of all children. It acknowledges and respects differences in children: age, gender, ethnicity, language.

Stubbs (1998) proposed an even broader definition of inclusive education that spans all life and goes beyond the school: inclusive Education refers as a wide range of strategies, activities and processes that seek to make a reality of the universal right to quality, relevant and appropriate education. It acknowledges that learning begins at birth and continues throughout life, and includes learning in the home, the community, and in formal, informal and non –formal situations. It seeks to enable communities, systems and structures in all cultures and contexts to combat discrimination, celebrate diversity, promote participation and overcome barriers to learning and participation for all people. It is part of a wider strategy promoting inclusive development, with the goal of creating a world where the basic needs and rights of all are met.

The Centre for Studies in Inclusive Education (CSIE, 2002) presents a further view of inclusive education as: all children and young people with and without disabilities or difficulties and learning together in ordinary pre-school provision, schools, colleges and universities with appropriate networks of support. Inclusion means enabling all students to participate fully in the life and work of mainstream settings, whatever their needs.

Sebba & Sachdev (1997) defines Inclusive education as a process involving changes in the way schools are organized, in the curriculum and in the teaching strategies, to accommodate the range of needs and abilities amongst pupils. Through this process, the school builds its capacity to accept all pupils from the local community who wish to attend and, by so doing, reduces the need to exclude pupils.

Forest & Pearpoint (1992) defines inclusive education as the process of being with one another, how we deal with diversity, how we deal with differences. Added to this Sebba (1996) defines inclusive education as the process by which a school attempts to respond to all pupils as individuals by reconsidering its curricula and provision.

The European Agency for Development in Special Needs Education (2010) defines inclusive education as the presence (access to education and school attendance), participation (quality of the learning experience from the students' perspective) and achievement (learning processes and outcomes across the curriculum) of all learners. The UNESCO (2008) definition states that inclusive education is: 'an ongoing process aimed at offering quality education for all while respecting diversity and the different needs.'

### ***Social inclusion***

Social inclusion means ensuring that everyone is included in the society and not excluded. Social inclusion focuses on the rehabilitation and equal opportunities of all people, and centres on the key aspects of health education, livelihood, social empowerment (sight savers). Inclusive education and social inclusion are mutually implicated in a feedback relationship wherein inclusive education can be considered a pathway to attain social inclusion. From a societal perspective, inclusive education is in line with debates resolving around the type of society to be

attained, the kind of wellbeing desired for all citizens, and the quality of democracy and social participation we wish to pursue. Central to inclusive education are issues such as the struggles against poverty, cultural and social marginalization and exclusion, the consideration of cultural diversity and multiculturalism as both a right and a learning context within a framework of shared universal values and the protection of the right of minorities, migrants and displaced persons, with the aim of giving equal opportunities to everyone and abilities, characteristics and learning expectations of students and communities, eliminating all forms of discrimination.

Sweden(2009) says an important component of inclusive education include intentional planning, teamwork, and team planning time, interactive and hands-on ways of exploring subject content, a truly flexible curriculum and commitment from schools leadership to support staff with the time, resources, training and vision necessary to implement inclusive practices.

### **2.1.7 Goals and Rationale of Inclusive Education**

The European Agency for Development in special needs education (2010) clearly states that ‘ the goal of inclusive education is to widen access to education and to promote full participation and opportunities for all learners vulnerable to exclusion to realize their potential’.

According to Winter & O’Raw (2010), the most compelling rationale for inclusive education is based on fundamental human rights. The human rights movement advocates that everybody be valued and treated equally and according to need. Education is a fundamental human right as enshrined in the Universal Declaration of Human Rights (United Nations, 1948).

More so, the goal of inclusion is also to provide children with an opportunity to learn about other children and how to live in a society where everyone is different. It provides an opportunity for disabled and non-disabled children to learn about each other and become aware of the fact that while there are differences, they have much in common.

Also, inclusion helps reduce fear and stigma that existed in the past. It also helps all of us to become aware of our diversity and to appreciate the value of every human being and their right to belong in society.

Inclusive education is planning an education that responds to the child’s needs through the development of an individual Education Plan (IEP) which also involves the child. Indeed, real inclusion requires that we rethink our approach to education and go beyond the old idea that

education is simply a way to prepare children for the world of work as cited by (Times of Malta, 2016).

### **2.1.8 Principles of Inclusive Education**

The European Agency for Development in Special Needs Education (2011) states that, “despite differences in national context it has been possible to highlight the key principles for promoting quality in inclusive education”. These inter-related and mutually supporting key principles are : responding to learners’ voices, positive teachers attitudes to help teachers develop a positive attitude towards all learners and the will to work collaboratively with colleagues, effective teachers skill to help teachers develop the skills to meet the diverse needs of all learners using a range of approaches which allow them to show what they know and understand visionary that demonstrates inclusive values and develops the positive ethos and environment for learning that form the basis of quality education, school leadership and the coherent interdisciplinary services.

For Tremblay (2008), the guiding principle of inclusive education is the learner equality, regardless of any peculiar difficulties or differences. For Save the Children (2002), inclusive education is about restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in their locality.

According to National Council for Special Education (2010), the fundamental principle of an inclusive school is that all children should learn together, regardless of any difficulties or differences. To be an inclusive school, therefore, means that the school accommodates the needs of all students and welcomes diversity as a way to enrich learning for everyone.

Also, the NCSE(2010) states that the underpinning principle of inclusive education is that all children and young people, with and without any disabilities or other special needs, are learning effectively together in ordinary mainstream schools, with appropriate networks of support. This principle means that we enable all students to participate fully in the life and work of mainstream settings, whatever their needs.



### **2.1.9 Importance of inclusive education**

According to UNESCO (2009), inclusive education is based on ethical, social, educational and economic principles. It is important in the following ways;

- It is a means to realize the right to high quality education without discrimination and having equal opportunities.
- It is a means to advance towards a more democratic and fair societies
- It is a means to improve the quality of education and the professional development of teachers.
- It is a means to improve the quality of education and the professional development of teachers
- It is a means to learn to live together and build our own identity.

According to Sankange (2013) inclusive education is important because it can be viewed as an empowering strategy. By creating and providing resources to all regardless of ability, the government is making an attempt to harness all the potential and skill in the country for development. Such contribution from all citizens promotes the country's development as there is maximum utilization of the human capital at its disposal.

Also according to this researcher, inclusive education would imply improving the physical environment as well as sensitizing the teachers and the students on a change in behaviour towards the physically challenged and be able to assist them when need be. Loreman (2009) argued that the majority of educators know very well what inclusive education is all about, but it is sometimes politically expedient for them to manipulate the term to suit whatever practice they happen to be currently engaged in, be it inclusive or not. It is also possible that the lack of a tight conceptual focus that inclusive education suffers from may have contributed to misconception and confused practices (Berlach & chambers, 2011). However, the key issue in this research is that inclusive education is to make the regular schools welcoming for all learners regardless of differences the learners might have and providing them the necessary infrastructure as such accessible lecture, restaurants, install ramps where they are stairs cases and handrails to enable move round with ease.

Hunter (2004), pointed out that the physically challenged learners benefit by having access to the general education. They acquire the same skills acquired by the others in the job market. Research shows that such learners are easily assimilated by their communities. Where inclusion is practiced, all children learn and grow in the environment that they will eventually live and work in. they are prepared for real world. They do not have to be separated from peers and relatives. This gives them a sense of belonging and they grow up as part of the community. They learn with their peers, who are the role models. It allows them to develop to their maximum potential (Wertheimer, 1997, Vaughan, 2002). This shows that there is need for children to learn together.

According to us, inclusive education is an anti-discriminatory educational innovation which aims at increasing the attendance, involvement and achievement of all students with disabilities especially the physical, social, economic and cultural status and improving on the infrastructure to welcome them into these schools.

The focus therefore is on the provision of friendly learning environments and diverse learning opportunities for all. An inclusive educational strategy calls for a critical consideration of the specificity and uniqueness of each child so as to provide them with effective educational opportunities. In this light, inclusive education should grow out of the social model of disability and recognizes that all children are different, and that the school and the education system need to change the infrastructure in order to meet the individual needs of all learners especially the physically disabled.

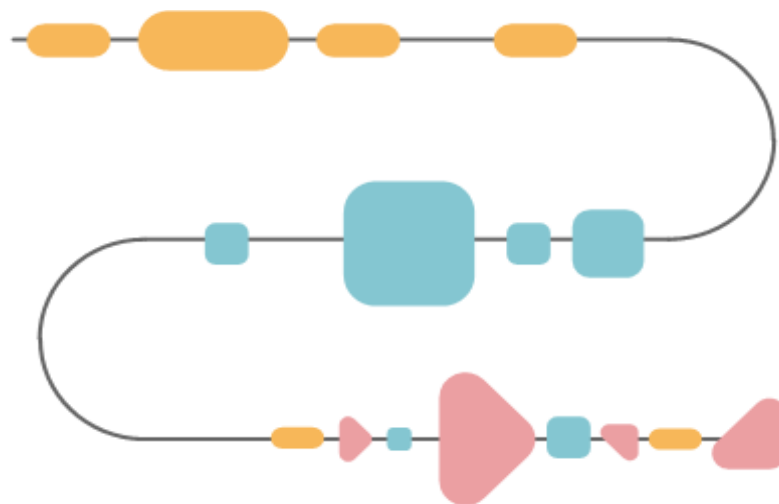
## **2.2 THEORETICAL FRAMEWORK**

A theory is a systematic body of knowledge, facts or sets of ideas that have been scientifically tested and proven by a set of principles and is generally accepted by other researchers and or scientists (Tanyi, 2009). A theory can be defined as a collection of opinions and ideas on a particular subject. A theory can also explain a given behaviour and so helps the researchers to predict conditions that might not happen thus can lead to a research theory. The Universal Design Approach, The Social Model of Disability and the Human development theory of Urie bronfenbrenner will serve as the theoretical foundation of this research work.

### **2.2.1: THE UNIVERSAL DESIGN APPROACH**

Universal design means broad spectrum ideas meant to produce buildings, products and environments that are inherently accessible to older people, people without disabilities and people with disabilities. The term “universal design” was coined by the architect Ronald L Mace to describe the concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability or status in life. However, it was the work of Selwyn Goldsmith, author of designing for the disabled (1963), who really pioneered the concept of free access for people with disabilities. His most significant achievement was the creation of the dropped curb- now a standard feature of the built environment. As life expectancy rises and modern medicine increases the survival rate of those with significant injuries, illnesses and birth defects, there is a growing interest in universal design.

#### **SCHOOL DESIGN BASED ON THE UNIVERSAL DESIGN APPROACH**



“Universal design means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. Universal design shall not exclude assistive devices for particular groups of persons with disabilities where this is needed”

Isolated strategies for enhancing accessibility and inclusion for people with disabilities are insufficient; they are too often considered as additional, costly and optional measures in support of a minority.

## **Elements of a barrier-free school environment according to the universal design in education (ude) strategy**

-The way to school

- The infrastructure of the school building; these are; school administration, schoolyard, workshops, retreat and therapy rooms, school canteen, sanitary rooms, classroom

-Extracurricular training spaces including transfers

According to the universal design approach, the barriers to attending school for children and adolescents with disabilities that arise from the physical school environment may be categorized as follows:

### **THE WAY TO SCHOOL**

This concerns the distance from home to school, the accessibility/quality of roads under different weather conditions (rainy season, drought) with particular respect to users of wheelchairs, walking Aids and walking sticks, safety aspects on the way to school (especially girls with disabilities are at risk of specific forms of violence) as well as the accessibility of public transport.

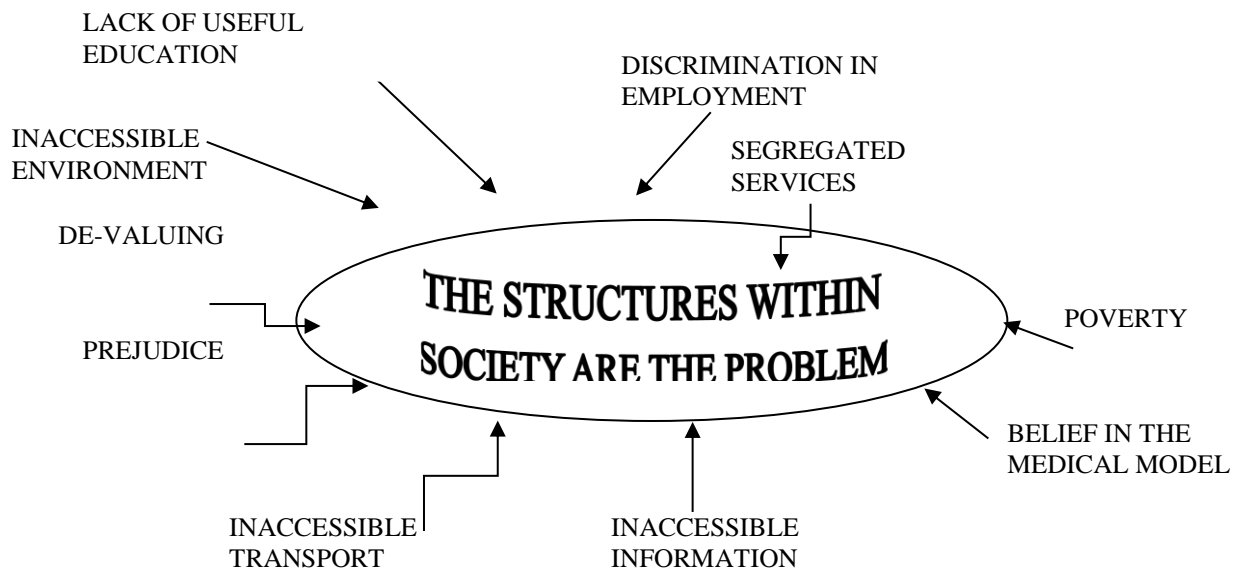
### **THE INFRASTRUCTURE OF THE SCHOOL BUILDING**

The school building is supposed to ensure full access for all learners and in particular for children and adolescents with disabilities. This not only includes the classroom, but relates to the school canteen, school administration (head teacher's room/school office, staff room, library etc.), workshops or the school garden as well. For all rooms aspects such as circulation space (for users of wheelchairs, walking aids, and walking sticks), seating and workplace design (furniture and fixtures, space requirements) along with the possibility to provide orientation have to be taken into account. When addressing the issue of the limited usability and accessibility of school toilets, commonly considered a major "weakness", cultural, religious as well as disability-related aspects are to be united<sup>13</sup>. Children and adolescents with disabilities may need special retreat or therapy rooms, where they can have some time off to better cope with the requirements of the school day. These rooms, thus, have to be incorporated into the planning of school buildings as well.

## EXTRACURRICULAR TRAINING SPACES INCLUDING TRANSFERS

The importance of extracurricular learning spaces as barriers to school attendance is commonly underestimated. It is generally not perceived as a problem when children with disabilities are not able to attend cultural or political events, school trips or field trips to nearby companies or institutions and instead are being left behind and excluded from their class. This exclusion from common learning processes is sometimes even misinterpreted as positive, as it would leave children with disabilities more time for individual supporter's relaxation. What is required here instead is to provide a thorough analysis of the barriers encountered in these learning spaces (institutions, companies, theatres, museums) or in the related transfer and to address these accordingly.

### 2.2.1 THE SOCIAL MODEL OF DISABILITY (MIKE OLIVER, 1975)



**Fig; 1.1: DISABLED PEOPLE AS ACTIVE FIGHTERS FOR EQUALITY  
WORKING IN PARTNERSHIP WITH ALLIES**

**Source:** British council of disabled people and disabled people international (1981)

The social model was introduced in 1975 by a disabled lecturer Mike Oliver. He adapted it from a booklet published by the Union of Physically impaired against segregation (UPIAS, 1975) titled "Fundamental Principles of Disability". The social model is a concept based on the

principle that some individuals have physical differences which can affect their ability to function in the society. Oliver explains that it is the society that causes the individual with these physical differences to be disabled. In other words, individuals with impairment are not disabled by their impairment but by the barriers that exist in society which do not take into account their needs. They also provide a reference for society as laws, regulations and structures are developed that impact on the lives of disabled people.

According to this model, Oliver (1975) says the environment disables impaired people by not being accessible enough for them to move, function and communicate as effectively as people without impairment. Physical accessibility to markets, shops, public building, places of worship and schools are limited to the physically disabled. Also, through the social model, disability is understood as an unequal relationship within a society in which the needs of people with impairments are often given little attention.

Added to this, the social model of disability jointly developed by Finkelstein, Oliver and Barnes, people are disabled by a society that oppresses and discriminates against people with impairments. This oppression and discrimination occur because society is geared towards the needs of people without impairments thereby presenting physical, organizational and altitudinal barriers to persons with disability. The social model thus puts the responsibility for the exclusion and disadvantage faced by disabled people firmly onto society. Thus disabled people are excluded and disadvantaged not by their impairments but by the fact that society does not take account of their needs.

“If disability is defined as social oppression, then disabled people will be seen as the collective victims of an uncaring or unknowing society. Such a view will be translated into social policies geared towards alleviating oppression (Oliver, 1990 P22). Finkelstein (2001) makes the point that in order to promote inclusion and equality by achieving societal change. It is necessary to focus not on the individual experiences of disabled people but on the barriers in society which disadvantage disabled people and which can start to be dismantled once the nature of the discrimination and oppression caused by these barriers is recognized. Barnes (1996) was very clear about the purpose of the social model, to concentrate on disabling physical and societal barriers that can be changed rather than biological facts (impairments) that cannot.

The social model also states that disabled people are having the same desires, needs and aspirations of the non- disabled persons. This means that disabled persons should be allowed to enjoy the same freedom and choices as those who are not considered disabled and should be allowed equal rights and responsibility in making life decision. The case is a bit different now in Cameroon as laws have been enacted to protect them of their civil human rights as we can see the physically disabled attending the same school just like the valid children having free education but not everything is put in place as concerns the physical environment like access into lecture hall, playground and toilet facilities does not permit them to access like the case of Lycee Bilingue D'etoug-ebe. Unlike the medical model that considers individual impairment as the problem, the social model considers the society and its disabling structures of barriers as the problem of Inclusion. These barriers can be divided into three different categories

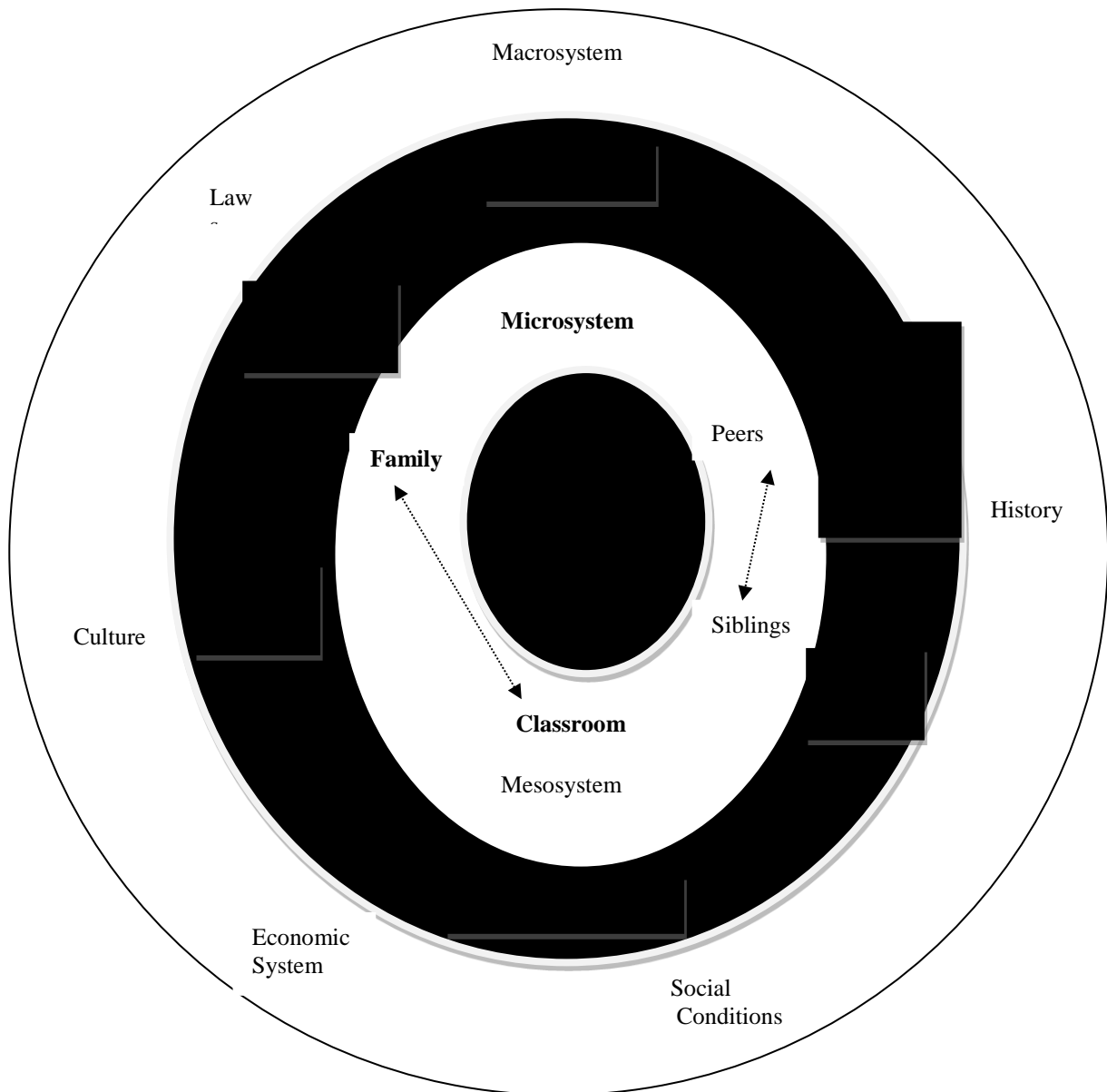
- Environmental including inaccessible building and lecture halls (classrooms)
- Economical unequal opportunities to people with impairment in education
- Cultural negative shared attitude towards the disabled by non-disabled. These barriers prevent them from gaining equal access to information, education, employment, public transport, housing and social and recreational opportunities.

The model therefore aims at changing the perceptions of individuals that we are different and have the same right as the valid persons.

Also a great deal of the environment is designed by non-impaired people living as outlined in the model. This hinders adaptation of the physically disabled because there is no accessibility. If the environment can be made accessible through the provisions of ramps and lift in storeybuilding, the physically disabled would easily adapt and if the doors were constructed wide enough for those with wheelchairs to have easy access into public buildings, the enrolment capacity of the disabled learners using wheelchairs will increase. The main implications of the social model to this research is that physically challenged do not need sympathy or pity, but that the barriers to their participation in the school needs to be identified and overcome by adapting the environment to suit their stay in those schools as inclusive education is not only about accepting both the physically challenged and the valid students in the same classrooms but

preparing the infrastructure that enable their stay into these schools.

### **2.2.2URIE BRONFENBRENNER ECOLOGICAL MODELS OF HUMAN DEVELOPMENT (1979)**



**Figure 1.2: Bronfenbrenner’s ecological model describing the set of nested environmental influence on support service to the development of a child with special educational needs.**

Bronfenbrenner’s ecological paradigm was first introduced in the year 1970(Bronfenbrenner 1970, 1976, 1977, 1979). It represented a reaction of the restricted scope of



most of the research being conducted by developmental psychology. In a book edited by Vasta (2002), Bronfenbrenner (1979, P 29) defines developmental psychology as the science of the strange behavior of children in strange situations with strange adults for the briefest possible period of time. According to Bronfenbrenner (1989; 2002, 222) the utmost goal of any scientific effort is to understand in a systematic way the processes and results of human development as a common equation of man and environment. Inclusion is a human or social ecology and the ecological model which focuses on inclusive schools as a micro – system setting whose interactions with other systems setting in the eco-system cooperate to support children with special needs in the learning and educational development process.

The ecological of human development involves the scientific study of the progressive, natural, accommodation between an active, growing human being and the changing properties of the immediate setting in which the developing person lives as the process is affected by the relation between these settings and by the larger context in which the settings are embedded (Bronfenbrenner, 1979 P.21). According to this theory, the ecological environment consists of a set of nested structures, each inside the next, like a set of Russian dolls. At the innermost level is the immediate setting containing the developing person. Urie Bronfenbrenner (1979) says developing person is viewed not merely as a tabula rasa on which the environment makes its impact but as growing dynamic entity that progressively moves into and restructures the milieu in which it resides and the environment also exerts its influence requiring a process of mutual accommodation, the interaction between the person and the environment is viewed as two directional that is characterized by reciprocity. The objectives of human ecological development model are as follows:

- Development results from a continuous interaction between the organism and his environment.
- The organism and his environment influences the mutually and constantly each adapting to changes of the other.
- Adaptation is equilibrium between the forces and weaknesses of an individual and his risks and opportunities encountered in his environment.

- Also a premature child can develop harmoniously if his or her environment is particularly rich in opportunities but on the contrary a child born with many potential can develop problem of behaviour to a high level of risk.

The opportunities of the human development ecological model are material condition, emotional and social condition of the environment which stimulates or reinforce development and adaptation but this human development ecological model also has risks which involve:

Material conditions, emotional and social condition that threaten directly the individual specifically when we talk at times of socio-cultural in referring to conditions that does not threaten directly the person but which improves the quality of possible experiences. The five setting levels of the human ecological development model but we shall use four levels related to this theory:

### **The micro system**

Bronfenbrenner (1989,) underlines the possible meaning for development of the personal qualities of the significant people in the immediate environment. The micro system which is a pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics or it is a place or immediate context in which the individual has a direct and activate participation. Berk (2000) says that the micro system is a closest environment for a child and includes the structures with which the child maintains direct contacts.

Paquette and Ryan(2001) interprets Bronfenbrenner's ideas and maintains that at this level the relations between persons happen in two ways; from the child and towards the child. For example, a child's parents have an influence on his or her beliefs and behaviour, but the child can as well influence the parents beliefs and behaviour. For example the family, sport club, school and peer group. Here we refer to the physical environment but also persons and objects which it contains the activities and roles which takes place. A young child who has only one micro system is called to make his entrance into new Microsystems.

The mesosystem comprises the linkage and processes taking place between two or more setting containing he developing person (relation between home, school and workplace. Paquette

and Ryan (2001) define the mesosystem by saying that this layer produces the connections between the child Microsystems, that is connections between the child's teacher and the parents or the child's church and the neighbourhood. Saarinen et al (1994) explain the mesosystem by saying that it consists of the relationships that the child's and a young person's Microsystems have between themselves. For example: the exchange between the parents and the teachers. For a child to adequately adapt in school the parents have to love her and a good school is not sufficient if the parents do not valorize the intellectual learning and if the teachers do not offer language spoken at home.

Exosystem comprises the linkage and processes taking place between two or more setting at least one of which does not contain the developing person but in which events occur that indirectly influences processes within the immediate setting in which the developing person lives. For example the relation between the home and the parent's workplace; for a parent, the relations between the home and the parent's workplace; for a parent, the relations between the school and the neighbourhood group (Bronfenbrenner 1989. 227).

Macro system consist of the over arching patterns of micro, meso, and exosystem characteristic of thinking, ideology, values and way of life of a given culture or sub culture or other broader social context, with particular reference to the developmentally- instigative belief systems, resources, hazards, life styles, opportunity structures, life course options, and patterns of social interchange that are embedded in each of these systems.

The macro system can be thought of as a societal blueprint for a particular culture, subculture, or other broader social context. Berk (2000) writes that the macro system is the outmost layer for the child. It has no distinct framework but it holds inside it the cultural values, traditions and laws.

The macrosystem influence penetrates through all other layers. For example, if in a culture it is believed that bringing up children is the parent's duty then evidently this culture will not offer much help to the parents in their educational efforts (Paquette & Ryan, 2001). Saarinen et al. (1994,p 90) say that the impact of the macrosystem will often be noticed only after making comparison between children and young people, growing up in different societies. Bronfenbrenner (1974) has pointed out the influence of macro systems by comparing children's socialization in the Soviet Union and the United State Of America.

The ecological model of human development has two propositions which are:

Proposition 1: Especially in its early stage, and to a greater extent through processes of progressively more complex reciprocal interaction between an active, evolving bio psychological human organism and the person, objects and symbols in its immediate environment. To be effective, the interaction must occur on a fairly regular basis over extended period of time such enduring form of interaction in the immediate environment are referred to as proximal processes. Examples of enduring patterns of proximal process are found in the parent- child activities, group, play, reading, learning new skills, studying athletic activities and performing complex tasks.

Proposition 2: The form, power, content and direction of the proximal processes affecting development vary systematically as a joint function to the characteristics of the environment both immediate and more remote in which the processes are taking place and the nature of the developmental outcome under consideration.

The ecological models of human interpretation (1979) is important in this study because the various system level setting liaise and cooperate with school in their inclusive education process and the ecological model explains the cooperative interaction between the school micro system and their partners of the other sub system within the ecosystem in supporting children with special educational needs in their learning and development process.

It was observed that children with difficulties in learning were abandoned to themselves. This subsequently led to the introduction of inclusive education and changes were noticed. It is observed that children who learn in school have a positive attitude towards life and their disabilities. This inspired the researcher to propose the Bronfenbrenner's theory (1979) that dwells on human development and follows one's growth as a fully competent member of the society.

According to Bronfenbrenner (1989, 2002), the utmost goal of any scientific effort is to understand in a system way the processes and results of human development as a common equation of man and environment. According to Bronfenbrenner, development and socialization are influenced by the different width rounds or circles of the environment with which a person is an active inter-relation. This includes three significant assumptions: 1) the person is an active player, exerting influence on his or her environment, 2) environment is compelling person to

adapt to its condition and restrictions and 3) environment is understood to consist of different size entities that are placed one side another.

### **2.2.3 VARIABLE OF THE STUDY**

A variable according to Fraenkel & Wallen (2006) is a noun that stands for variation within a class of objects. It is a characteristic that can assume any one or several values. There are two types of variables:

- Independent variable
- Dependent variable

#### **Independent variable**

The independent variable is those variables that the researcher chooses to study in order to assess their possible effects on one or more other variables. It is also the explanatory or manipulative variable. The independent variable of this study is SCHOOL INFRASTRUCTURES.

#### **Dependent variable**

The dependent variable is presumed to be affected by one or more independent variables. In this study, the dependent variable is INCLUSIVE EDUCATION.

**2.2.4 TABLE 1: The synoptic table**

<b>Variable</b>	<b>Indicator</b>	<b>modalities</b>	<b>indices</b>
School Infrastructure(VI)	School building	Favourable	Storey building( adapted or in adapted)
		Non-favourable	
	Structure of the campus	Favourable	<ul style="list-style-type: none"> <li>• Stairs(adapted or inadapted)</li> <li>• Ramps( adapted or inadapted)</li> <li>• Toilet( accessible or inaccessible)</li> <li>• Playground(accessible)</li> </ul>
		Non-favourable	
	Organization in the classroom	Favourable	<ul style="list-style-type: none"> <li>• Tables(adapted or inadapted)</li> <li>• Doors(adapted or inadapted)</li> </ul>
		Non-favourable	
Inclusive education	Physically disable and valid in the classroom		

# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

### **INTRODUCTION**

Research methodology is a way to systematically solve the research problem. It may be understood as a science which studies how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. It is necessary for the researcher to know not only the research methods and techniques but also the methodology. Researchers not only need to know how to develop certain indices or tests, how to calculate the mean, the mode, the median, the standard deviation or chi square, how to apply particular research techniques, but they also need to know which of these methods or techniques are relevant and which are not, and what would they mean and indicate and why.

This chapter deals with the method that has been used to collect and analyze data for this study. It comprises the following aspects: research design, population of the study, the study site, sampling techniques, research instruments, validity and reliability of instruments, data collection procedure, statistical technique analysis, variables of the study.

### **3.1: RESEARCH DESIGN**

A research design is a strategic framework for action that serves as a bridge between planning and the execution or implementation of the research (Terre Blanche and al, 2002). Research designs are plans that guide the arrangement of conditions for collection and analysis of data in a way that aims to combine relevant information to the research purpose with economy in the procedure. Terre Blanche and al(2006) assert that a valid and coherent research design takes into account the decisions made relevant to four dimensions which include: the theoretical

paradigm informing the research, the purpose of the research , the context or situation within which the research is carried out, the research techniques employed to collect and analyse the data. As a result, the intent of this study is to explore adaptation strategies put in place for the physically challenged to cope in inclusive schools.

The design used for this study is the descriptive research design. Descriptive studies are also called observational, because you observe the subjects without otherwise intervening. The simplest descriptive study is a case, which reports data on only one subject; examples are a study of an outstanding athlete or of a dysfunctional institution. Descriptive studies of a few cases are (physically impaired) called case series. Our study is therefore a descriptive study of a few cases (handicapped students) in a formal setting. According to Porter et al. (2000), in a descriptive study, no attempt is made to change behaviour or conditions. You measure things as they are.

## **3.2 POPULATION OF THE STUDY**

### **3.2.1 Study population**

Population according to Daramola (1995) implied people, objects or events depending on the research interest of a given study. To Frankel & Wallen (2006) a population is the largest group to which a researcher hopes to apply the results obtained from a sample. Mbagwana (1999) defines population as “a portion of the universe to which the researcher has access”. The population of study is the total number of participants from which the sample is selected. Due to practical and financial considerations, it is rarely possible to study all the members of the population (Mitchell and jolly, 2004). It is therefore necessary to select a sample of target population. Strydom (2002) adds that the population also refers to the entire group of people that meet a designated set of criteria. The population of this study comprises all the students of Government Bilingual High School Etoug-ebe. The school is suitable for this study because the government of Cameroon has ratified laws accepting the admission of the physically impaired into government secondary schools and we want to evaluate the effectiveness of inclusive education policy.



### **3.2.2 The target population**

To Fraenkel & Wallen(2006), the target population is that population the researcher would really like to generalize his findings. The target population for this study was made up of all students from the fifth form and above for the three main sections namely: Bilingual, English and French. This delimitation was due to the fact that a cursory analysis revealed that students of the lower classes might not understand the content of the questionnaire thus posing a threat to internal validity

### **3.2.3 The accessible population**

This is the population to which a researcher has effectively studied. At the time of data collection, some students were out of school and others writing exams thus it was necessary to redefine the accessible population. All this led to have an accessible population of 2800.

## **3.3 THE STUDY SITE**

Daramola (1995) defines study sites as the place for the study followed by the reasons for carrying out the research in the geographical area. The area chosen for this study is Yaoundé, the capital city of Cameroon, Mfoundi Division, particularly Yaounde Sixth (VI). It is made up of Mendong, Simbock, Mvog-betsi, Nkolnie, Etougebe-obili, Melen, Biyem-assi. The school chosen was Government Bilingual High School etougebe. This school was chosen because it is a secondary school where we find physically disabled as well as valid in the school and as regard the infrastructural development of the school. LyceeBilingueEtoug-ebe was created in 1990 and went operational as a government secondary school in 1991 at the etoug-ebe plateau. The school has a total population of 5400 students (2016-2017 school years). The school is made up of

- Seventy(70) classrooms
- Two computer laboratory
- Two school laboratories: for sciences and Food and Nutrition
- A school library
- A multimedia Centre with over forty computers mainly for teachers research
- Two administrative and staff toilets

- A dining shade for students
- A student toilet divided into two sections; four for girls and four for boys.
- A football pitch

The telephone number of the school is 222 31 96 54 and the postal box is 12320.

The school is made up of Seventeen offices for the vice principals, Discipline masters, guidance counsellors, bursary, school dispensaries, extra curricula activities

### 3.4 SAMPLING TECHNIQUES

According to Daramola (1995) a sample in research is any group on which information is obtained. To her, sampling is defined as the process of selecting a number of individuals from a population, preferably in such a way that individuals are representative of the larger group from which they are selected.

According to Morgan & Krejcie (1970) a population of 2800 corresponds to a total sample size of 338 which is what was considered as the suitable sample size for the study. However, upon administration, it was noticed that all did not respond to the questionnaires and a total of 318 filled copies of the questionnaire were returned thus yielding a response rate of 94%.

The study used a stratified sampling technique where students were selected from a sampling frame which was the class lists provided by the school. The lists were mixed for each level considered and students selected in the proportion they were represented in the population according to the Table below.

**Table: Population and Sample Repartition**

Class	Population	Frequency	Proportion
US	1285	155	45.9
F5	885	107	31.6
LS	630	76	22.5
<b>Total</b>	<b>2800</b>	<b>338</b>	<b>100.0</b>

### **3.5 RESEARCH INSTRUMENTS**

The study made use of primary data collected with the help of a questionnaire which was designed by the researcher. The questionnaire was first written in English then further translated into French since the sample had students of both linguistic backgrounds. The questionnaire had 24 items subdivided in four (4) sections. Section 1 captioned “identification” highlighted the demographics of the population namely age, gender; class attended and had four (4) items. The section 2 with three (3) items measured the enrolment of students with physical disabilities, here serving as a measure of inclusiveness. The section 3 with eleven (11) items measured elements related to the school’s infrastructure among others the classroom size, availability of special seats for physically challenged and others. The last section which was numbered four (4) had six (6) items and measured the school environment in general with special emphasis to the access to different key areas in the school

### **3.6 VALIDITY AND RELIABILITY**

As far as a research instrument is concerned, validity and reliability remain key concepts that ascertain the acceptability of a questionnaire. While validity has to do with the appropriateness of the instrument, reliability refers to its consistency in the measure.

#### **3.6.1 Validity**

As with all research, both the method and analysis needs to be valid. Haridakis & al (2010) explains that validity refers to a study measuring what it intends to measure and basically maintaining validity requires a researcher to conduct a study using tools that will represent data valid to the study itself. A research instrument is said to be valid if it actually measures what it is supposed to measure (Amin, 2005). Also Fraenkel, RJ & Wallen (2006) refers to validity as the appropriateness, meaningfulness, correctness, and usefulness of any inferences a researcher draws based on data obtained through the use of an instrument.

The validity of the research instrument was ascertained using a variety of methods. First of all, to ensure the face validity, it was enhanced with the use of expertise from colleagues, school administrators and the research supervisor. But since face validity is said to be at the lowest level of validity (Amin, 2005) the study also made use of content validity and construct

validity which were both ascertained by the different corrections made by the research supervisor upon design of the questionnaire and pre-administration to a group of 15 students from the Form 4 class.

### **3.6.2 Reliability**

According to Fraenkel&Wallen(2006), reliability is the consistency of scores or answers from one administration of an instrument to another and from one set of items to another. They also say that a reliable instrument is one that gives consistent results.

The reliability of the instrument was ascertained first of all through the corrections appended by the research supervisor.

The cronchbach alpha for the numerical items was further calculated (Using SPSS 20.0) and an acceptable score of 0.86 obtained.

### **3.7. DATA COLLECTION PROCEDURE**

The data was collected from the sample using a self-administered questionnaire. The questionnaire was first translated into French (to carter for students in the francophone section), then selected students were identified from class to class and meet in a period of ten days. They were handed to questionnaire which they filled on the spot and returned to the researcher. This permitted to have a good response rate

### **3.8. STATISTICAL TECHNIQUE ANALYSIS**

De vos& al (2005) explain data analysis as the process of bringing order, structure and meaning to the mass collected data.

The data collected was first checked for inconsistencies then analyzed using SPSS 20.0. with the help of charts, frequency distribution tables and measures of central tendency where applicable the descriptive analysis was done. Then taking into consideration the nature of the variables (Mostly nominal or recoded into nominal) the inferential analysis was done using a Chi Square and Cramer's V tested at 5%.

# **CHAPTER FOUR**

## **PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA**

### **INTRODUCTION**

The aim of this research is to find out how inclusive education has enhanced school infrastructure for children with special needs and with emphasis with the physically challenged. This section provides an analysis of the data collected during the field work at the Lycee Bilingue d’Etoug-Ebe. It will first present the data as per arranged on the questionnaire then perform a test of the hypothesis.

### **PRESENTATION AND ANALYSIS**

This part presents the data as per the arrangement on the data collection instrument.

#### *Demographic information*

In an attempt to provide a general description of the sample selected for the study, the gender distribution of the respondents was investigated and recorded in Table 1.

**Table 1: Gender Distribution of the respondents**

Gender	Frequency	Percent
Female	181	56.9
Male	137	43.1
<b>Total</b>	<b>318</b>	<b>100.0</b>

Source: Fieldwork, 2017

Data presented in Table1 reveals that majority of the respondents as represented by 56.9% of the samples are females while 43.1% are males. This is confirming the population statistics both at the level of the National Institute of Statistics and the Ministry of Education stating that

the clear majority of the Cameroonian population is made up of females. The above data could also be represented in the pie chart below labeled Figure 1.

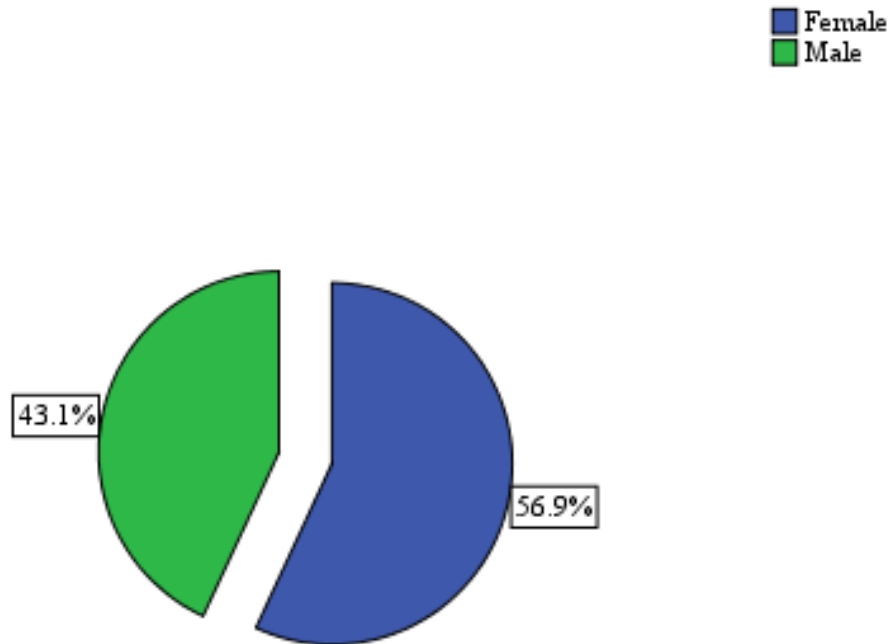


Figure 1: Gender Repartition of the Respondents

Source: Field work, 2017

As highlighted in the discussion of Table 1 and further reinforced by Figure 1, females represent 56.9% of the selected sample while males represent 43.1%.

The study also investigated the age distribution of the respondents which revealed that the mean age of 16.37 years with a standard deviation of 2.33 years. However, due to a negative skewness (-1.29) the median age was also calculated to be 17 Years. It was also found interesting to make an analysis of the age distribution per class and findings are summarized in Table 2.

**Table 2: Age Distribution per Class**

Class	Mean Age	SD
Upper Sixth	17.99	1.3
Lower Sixth	15.96	2.6
Form 5	14.31	1.3

Source: Fieldwork, 2017

Table 2 shows that the average age was 17.99 Years in the Upper Sixth class, 15.96 Years in the Lower Sixth form and 14.31 Years in the Form 5.

The next section sought to investigate the classes attended by the respondents and findings thereof are revealed in table 3.

**Table 3: Class Attended**

Class	Frequency	Percent
US	151	45.9
F5	104	31.6
LS	74	22.5
<b>Total</b>	<b>329</b>	<b>100.0</b>

Source: Fieldwork, 2017

The sample selected had 45.9% of students of Upper Sixth (both arts and sciences), 31.6% of students of Form 5 and the rest, namely 22.5% of students of Lower Sixth form. It should be reminded that the school is segmented in three sections that were all selected namely the Francophone, Anglophone and Bilingual sections as generally called.

The following section sought to accounts for the number of physically handicapped in the sample and also investigated if they have been any drop-out. Findings are summarized in Table 4.

**Table 4: Physically Handicapped Statistics**

Responses	Respondent Handicapped		Handicap in Class		Drop Out	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
NO	309	97.5	245	79.0	207	89.6
Yes	8	2.5	65	21.0	24	10.4
<b>Total</b>	<b>317</b>	<b>100.0</b>	<b>310</b>	<b>100.0</b>	<b>231</b>	<b>100.0</b>

Source: Field work, 2017

From the findings as recorded in Table 4, a great majority of the respondents (97.5%) are not physically handicapped, while 2.5% confirmed they were handicapped. Again when asked if they had students who are physically handicapped in their class, 79% said No and 21% confirmed they had in their class at least one student who is physically handicapped. The study also sought to find out if some of the students with physical impairment had dropped out of school and while 89.6% of the respondents said they hadn't, 10.4% had physically challenged students in the class who had abandoned school for unknown reasons. Upon presenting the demographic information of the population, the study sought to provide an assessment of the school building

### ***School Building***

The study in this section started by finding out from the students how many storey buildings were in the school campus. Inasmuch as this was an obvious question, it was surprising that respondents provided different responses. However, the mean number of storey building noted was 7, but with responses varying from 5 to 8 storey buildings.

Having confirmed that they are storey buildings in the school, the study sought to find out how student had access to them, responses provided have been highlighted in Table 5.



**Table 5: Access to Storey Buildings**

Access	Frequency	Valid Percent
Through Stairs	240	73.4
Through Stair and flat slop surface	66	20.2
Through a Flat slop surface	12	3.7
Through Elevator	8	2.4
Total	327	100.0

Source: Fieldwork, 2017

Table 5 shows that 73.4% of the respondents stated that access to storey buildings is through stairs, 20.2% acknowledge the availability of both stair cases and flat sloppy surfaces and 3.7% stated it's through a flat surface. There was however a surprising 2.4% who stated it was through a lift. From the responses gathered, this denotes a problem because if the main way of access is the stair then it becomes challenging for the physically handicapped to get to their classrooms.

The following item evaluated the largeness of the buildings and the appreciation given by respondents is compiled in Table 6

**Table 6: Estimated Size of Buildings**

Size	Frequency	Percent
Medium	200	60.6
Large	108	32.7
Small	14	4.2
Very Small	3	.9
Total	325	98.5

Source: Fieldwork, 2017

From findings gathered in Table 6, respondents believe that the buildings have are of medium size. This is as per responses selected by 60.6% of the respondents. However, 32.7% believe the buildings are large and 4.2% that they are small.

The next items investigated the presence of toilets at each level and when even they were their adaptability to the needs of the physically impaired. Findings from this can be seen highlighted in Table 7.

**Table 7: Toilets in Buildings**

Responses	Availability of Toilets		Toilets Adapted	
	Frequency	Percent	Frequency	Percent
NO	312	96.9	145	89.3
Yes	10	3.1	18	10.7
Total	324	100.0	163	100.0

Source: Fieldwork, 2017

Table 7 reveals that the different buildings in the school do not have toilets at all the levels. This is confirmed as 96.9% of the respondents said there were not toilets at all levels against 3.1% who said they were. This is a problematic situation as students would have to go up or down whenever they wanted to ease themselves.

Again, of the toilets present in the school, 89.3% of the respondent stated they weren't adapted to the needs of the physically handicapped. In other words, even if they could make their way to the toilets (with difficulty of access) it would be again a challenge for them to satisfy these physiological needs.

At this point, the study sought to assess the class size and the doors size as per the view of the respondents. The findings to these items are recorded in Table8.

**Table 8: Classroom Size**

Responses	Classroom		Class Doors	
	Frequency	Percent	Frequency	Percent
Medium	232	72.0	233	71.5
Small	47	14.6	79	24.2
Very Large	33	10.2	6	1.8
Very Small	10	3.1	8	2.5
Total	322	100.0	326	100.0

Source: Fieldwork, 2017

Table 8 shows for majority of the respondents, the classrooms are of medium size (72%). However, the perception of some of them is that the classes are small (14.6%) and some even find the classes very large (10.2%).

Talking about the doors giving access to the classrooms, up to 71.5% of the respondents find them medium, 24.2% stated that they are small and only 1.8 believe they are very large. The consensus is thus that the classes and their doors are of average sizes.

The study further asked the respondents if there were special benches for the physically handicapped. Responses recorded for this item are summarized in Table 9

**Table 9: Benches for Physically Handicapped**

Responses	Frequency	Percent
No	289	93.2
Yes	21	6.8
Total	310	100.0

Source: Fieldwork, 2017

Even though mitigated, Table 9 reveals that the general perception is that there are no special benches for students with physical disabilities. The finding comes as a result of 93.2% of the respondents denying the fact. Besides, amongst the respondents that stated that there are special benches for the physically impaired up to 90% stated that these benches were not demarcated but rather mixed with other benches in the class. Based on this, it can be said that even if really there are benches for the physically impaired, their classmates might simply not be aware as there is no differentiation.

The study further sought to find out the priority in terms of sitting given to the ‘special’ benches. Findings thereof are recorded in Table 10.

**Table 10: Priority**

Responses	Frequency	Valid Percent
The valid	60	48.4
For both	58	46.8
Those in wheelchairs	4	3.2
Those in crushes	2	1.6
Total	124	100.0

Source: Fieldwork, 2017

The findings in Table 10 unequivocally reveal that there is no clear priority in terms of sitting. About 48.4% of the respondents state that the benches are for the valid and 46.8% stated that the benches are for both valid and physically impaired. This adds up to display that the classrooms do not make any clear sitting provisions for physically challenged.

The next item assessed the accessibility to the teachers’ floor and findings highlighted in Table 11.

**Table 11: Access to Teacher's Floor**

Responses	Frequency	Valid Percent
The same level with students' floor	76	39.6
Stair	62	32.3
Flat slop surface	29	15.1
Both (stairs and Flat surface)	25	13.0
<b>Total</b>	<b>192</b>	<b>100.0</b>

Source: Fieldwork, 2017

From the findings in Table 11, about 39.6% of the respondents recognised that the teachers floor is at the same level with the students floor, 32.3% stated one needed to take the stairs, 15.1% stated you could get access to the teachers' floor through a flap, sloppy surface and 13% stated this could be accessed at the same time using a stair and a flat sloppy surface.

#### *School Environment*

This section that evaluated the overall school environment was set as a likert-scale and analyzed using means. Findings related are revealed in Table 12.

**Table 12: School environment**

Related Items	N	Mean
Entrance to the principal's office is made up of stairs	330	1.65
Entrance to the Discipline Masters' offices are made up of stairs	330	3.05
Entrance to the vice principals' offices are made up of stairs	325	3.10
Entrance to the staffrooms are made up of stairs	324	2.85
Entry to computer lab is made up of stairs	325	1.80
Entrance to the different toilets are made up of stairs	330	3.29
<b>Overall Mean</b>	<b>324</b>	<b>2.63</b>

Source: Fieldwork, 2017

*Scale: from 1.00- 2.50 Good Environment; from 2.51-4.00 Poor Environment*

It is worth noting that these items are treated as reverse items. In other words, obtaining a high score is displaying a bad performance. For example the principal's office being accessed only through stairs may mean that it is out of bond for students and even parents with physical disabilities.

The overall mean of 2.63 as displayed in Table 12 reveals that the overall environment of the school in terms of accessibility to key areas is poor. In other words, stairs are being used and the main way of accessing these areas which causes an impediment and a challenge for the physically impaired. Sensitive areas included the discipline master's office (Mean= 3.05), the Vice Principals' offices (Mean= 3.10) and the toilets (Mean=3.29). As at now, only the Principal's office (Mean= 1.65) and the computer Lab (1.80) have ease of access which even need some amelioration.

### **Test of hypothesis**

This section seeks to test the hypotheses stated for the study

*First hypothesis*

*H<sub>0</sub>: there is no significant relationship between school enrolment and the school environment*

This hypothesis was tested using the Chi Square and the Cramer's V accompanied by a contingency table labeled Table 13.

**Table 13: Handicapped School Enrolment**

		School Environment Group		Total	
		Good Environment	Poor Environment		
Presence of Physically Handicapped in Class	NO	Count	99	134	233
		% within Presence of Physically Handicapped in Class	42.5%	57.5%	100.0%
		% within School Environment Group	77.3%	80.2%	79.0%
		% of Total	33.6%	45.4%	79.0%
	Yes	Count	29	33	62
		% within Presence of Physically Handicapped in Class	46.8%	53.2%	100.0%
		% within School Environment Group	22.7%	19.8%	21.0%
		% of Total	9.8%	11.2%	21.0%
Total		Count	128	167	295
		% within Presence of Physically Handicapped in Class	43.4%	56.6%	100.0%
		% within School Environment Group	100.0%	100.0%	100.0%
		% of Total	43.4%	56.6%	100.0%

$X^2=0.212$ ,  $df=1$ ; *Cramer's V*=0.035; *p-value*=0.54

From the findings in Table 13, 42.5% of respondents with no physically challenged students in their class think the school has a good environment and 57.5% think the environment is poor. Likewise, 46.8% of the respondents who have physically handicapped students in their class see a good environment and 53.2% think the environment is poor. These percentages are

associated to a  $\chi^2=0.212$  for a p-value of 0.54 and a Cramer's V=0.035 all stating that there is no relationship between the enrolment and the school infrastructure. The p-value (0.54) >  $\alpha$  (0.05), we thus reject the null hypothesis and conclude that there is no significant relationship between the level of enrolment of physically handicapped students and the environment of the school.

*Second Hypothesis*

The second hypothesis stated that

*H<sub>0</sub>: there is no relationship between the school's building and the inclusive education of the physically challenged*

The school's building section looked at general items relating to the structure of the building, their ease of access and the campus in general. The composite variable here called school building was therefore obtained from various item in relations to the overall description of the campus. Findings are summarized in Table 14.

**Table 14: School Building**

			Presence of Physically Handicapped in Class		Total
			Yes	No	
School Structure	Good	Count	2	8	10
		Percent	20.0%	80.0%	100.0%
	Poor	Count	53	118	171
		Percent	31.0%	69.0%	100.0%
Total		Count	55	126	181
		Percent	30.4%	69.9%	100.0%

$\chi^2=5.06$ ; df= 1; Cramer V=0.55; p-value=0.05

Table 14 shows that 20% of the respondents that stated that the school has good structure have physically handicapped in their class against 80% who did not. Likewise, up to 31% of those who view the school's structure as poor have physically handicapped in their class and 69% don't. The corresponding statistics calculated ( $\chi^2=5.06$ ; df = 1; Cramer V=0.55) with a p-



value=0.05 allow us to reject the null hypothesis and conclude that there is statistically significant relationship between the school’s structure and inclusive education.

### Third Hypothesis

*H<sub>0</sub>: there is no relationship between the structure of the class rooms and the inclusive education of the physically challenged.*

The structure of the classroom against inclusive education was analysed by creating a new variable taking into consideration the classroom size, the classroom door size, the availability of special benches and if any the arrangement and priority of sitting. These allowed the study to come out with a new variable called Class Structured coded as dichotomous variable (nominal scale) and hypothesis tested using a chi square supported by a Cramer’s V and a 2x2 contingency table as depicted in Table 15

**Table 15: Class Structure and Inclusive Education**

			Presence of Physically Handicapped in Class		Total
			Yes	No	
Class Structure	Good	Count	8	5	13
		Percent	61.5%	38.5%	100.0%
	Poor	Count	54	217	271
		Percent	19.9%	80.1%	100.0%
Total	Count	62	222	284	
	Percent	21.8%	78.2%	100.0%	

$\chi^2=10.27$ ;  $df=1$ ; Cramer V=0.211; p-value=0.001.

Table 15 reveals that 61.5% of the respondents that stated the school had a good class structure also had physically handicapped in their class against 38.5% who did not. Likewise, only 19.9% had a poor class structure with physically handicapped against 80.1% with poor class structure and no physically handicapped.

Furthermore, the analysis obtained a  $\chi^2=10.27$  with a Cramer's  $V=0.211$  since the p-value obtained is 0.001 it is clear that there is a relationship between the two variables. In other words, since p-value (0.001) <  $\alpha$  (0.05) we reject the null hypothesis and conclude that there is a statistically significant relationship between the classroom structure and inclusive education for the physically handicapped.



**ENTRANCE TO THE COMPUTER LABORATORY**



**THE ENTRANCE TO THE CLASSROOM**



**ENTRANCE TO THE TOILETS- BOYS TOILIETS**

# **CHAPTER FIVE**

## **DISCUSSION OF FINDINGS, THEORETICAL AND PROFESSIONAL IMPLICATIONS AND RECOMMENDATIONS**

This chapter is aimed at discussing the findings which emerged from the study. The chapter presents the major findings with respect to the inclusive education and infrastructure of the physically challenged at the Government Bilingual High School Etougebe. Mitchel & Jolley (2001) argued that the review of literature and findings of the empirical data are compared with each other and this will be followed by theoretical and professional implications.

### **5.1 RECALL OF THEORIES**

Three main theories were used in this study: the Universal Design Approach, the Social Model of Disability and the Ecological model of Human Development. A recall of these theories shall be explained below.

#### **The Universal Design Approach**

In this, the researcher took into consideration that school infrastructures do not favour inclusive education of the physically impaired in Government Bilingual High School Etoug-ebe. This is because when designing the building of the school, architects and or technicians did not take into account a universal approach (building for everyone). A universal approach helps to remove physical, sensory and cognitive barriers in the school system and to ensure accessibility, orientation, usability and safety of schools for all children and adolescents. Education policy, development cooperation and educational science will support the contextualisation process and the adaptation of the universal design approach to the local economic, social, cultural and religious conditions of the countries of the global south.

## **The Social Model of Disability:**

In this model, the researcher took into consideration that school infrastructure does not favour inclusive education because the society (the government) is unable to provide the facilities that they need to learn in the society. This theory which states that the society causes the individual with these physical differences to be disabled or in other words individual with impairment are not disabled by their impairment but the barrier that exist in society which do not take into account their needs. This is exactly what is found in the field like the case of the Government Bilingual High School Etoug-ebe where structures are built without taking into consideration the physically disabled and after vindication by the physically challenged that they are struggling to ameliorate the situation by introducing ramps in some buildings.

## **The Ecological Human Development Theory of Bronfenbrenner(1975)**

The ecological human development theory where the various system level setting liaise and cooperate with school in their inclusive education process. The ecological model explains the cooperative interaction between the school and their partners of the other subsystem within the ecosystem in supporting children with special educational needs in their learning and development process. It was observed that children with difficulties in learning were abandoned that is why they proposed inclusive education and changes were noticed.

## **5.2 RECALL OF EMPERICAL DATA**

In this study the objective was to examine if school infrastructure does favours inclusive education in Government Bilingual High School Etoug-ebe. To attain this objective, the collection of data through questionnaires were closed and opened ended questions items were presented to participants and applicable descriptive analysis was done. From this analysis, it brings out the fact that school infrastructure does not favour inclusive education for the physically disabled in the Government Bilingual High School Etoug-ebe as regard the structure of the school building and the classrooms. They are not adapted for the physically disabled be it the disabled students or the disabled teachers. Furthermore, after the descriptive analysis, it was

observed that neither the school toilets (both students and staff toilets) nor the different school laboratories are accessible for physically challenged students. Entrance to the principal's office is solely made up of stairs which is a major obstacle for the mobility of physically challenged students especially those moving with wheelchairs.

## **5.3 DISCUSSION OF FINDINGS**

This study was aimed at examining if school infrastructure is favourable to inclusive education. In order to carry out this study, three research questions were formulated to guide the investigation and a questionnaire was used as a main research instrument and data collected descriptively and analysed using the descriptive research design.

### **5.3.1 Enrolment capacity of the physically challenged**

The aim here was to investigate if there is a relationship between enrolment capacity of the physically challenged and inclusive education. After investigations, findings indicated that the low enrolment capacity of the physically challenged in the School is the outcome of poor inclusive school infrastructures for the physically challenged. The result is in accordance with the works of Tanyi (2011) & Peter (2013) who say that the structure of the school plays a great role in the enrolment of disabled students since it should eliminate barriers to the disabled and foster physical access and participation of students in school.

### **5. 3.2 School Buildings for Inclusive Education**

The aim here was to investigate if there is a relationship between school building and inclusive education. After investigation, findings indicated that school buildings in the Government Bilingual High School Etoug-ebe do not favour inclusive education as it is the same theory that the social model of disability theory of Mike Oliver (1975) says the environment disables impaired people by not being accessible enough for them to move, function and communicate as effectively as people without impairment. From the results obtained, most of the buildings are storey buildings and made up of stairs thereby rendering accessibility to these



various storey buildings difficult to physically challenged students. This is because designers and engineers who built these buildings did not take into account the needs of the physically challenged. There is no doubt therefore in the views of Barnes (1987) and finkelstein(2001)who say that people are disabled by a society that oppresses and discriminates against persons with impairment.

### **5.3.3 Structure of the classroom and inclusive education**

The aim here was to investigate if there is a relationship between the structure of the classroom and inclusive education. After investigation, findings indicated that classroom structures in the Government Bilingual High School Etoug-ebe do not favour inclusive education. This is in accordance with Tanyi (2015) who considers that the impact of classroom infrastructure is not a variable to be considered in inclusion. This is in disagreement with S. Gray Garwood (1983) who says careful planning of classroom layout is essential in every school and certain basic features of efficient design are common to the education of all types of students. The size of classroom areas on a per pupil basis in a school including disabled students should be larger than in a conventional school.

## **5.4 IMPLICATIONS**

### **5. 4.1. Theoretical Implications**

We talk about theoretical implications in relation to inclusive education and school infrastructure in Government Bilingual High School Etoug-ebe; this implies that the results of school infrastructures on inclusive education show that school infrastructures do not permit inclusion of the physically disabled. This is visible in the sense that the structure of the classes are mostly in storey building and full of steps (stairs) and the material organisation of the classes does not facilitate school inclusion of the physically disabled. We acknowledge the fact that studies have been carried uniquely on individuals and how these individuals succeed, other studies on methods of teaching, training of teacher but mostly on the environment. From this point of view, the results obtained from the field confirm the influence of the school

infrastructure on inclusion of the physically disabled.

The fact that we emphasise on school infrastructures implies that we want to see what theory has been propounded to deal with school infrastructure and we choose; the universal design approach to explain the fact that when buildings are constructed for the usage of everyone, inclusive education practices are well promoted a situation not visible at Government Bilingual High School Etoug-ebe, the social model of disability theory which explains the phenomenon of the organisation of the society to disable those with physical differences and ecological model of human development which is from the structural point of view (microsystem, the exosystem and macrosystem) to see what practical implication can favour inclusive education. This research does not bring anything new but prolongs holistic perspective of the phenomenon of inclusive education and not on individualistic perspectives. The influence of the organisation of the microsystem, the mesosystem, the exosystem and macrosystem influences one another and influences the society to render those who physical differences disabled which influences inclusive education in either favouring or disfavouring the physically disabled. The holistic perspective of the macrosystem indicates the whole is greater than the sum of its parts

#### **5.4.2 Professional implications**

As regards the professional implication of inclusive education, a high degree of teacher efficacy for inclusive practices must be in evidence. In order to accomplish this, adequate teacher education must be provided and teachers must take ownership over their own learning and seek out opportunities for professional growth (Pijl, 2010, Smith & Tyler 2011).

It is in this light that the Faculty of education has been created in the University of Yaounde 1 wherein special departments have emerged: the department of Curriculum and Evaluation (CEV) and the department of Special Education (EDS) are under this faculty. The latter dwells on principles and techniques on special education and or inclusive education. It is thanks to that department that research has been intensified on the putting in place of quality inclusive education practice. At the Teachers Training Colleges, the department of sciences of education trains professionals and teacher trainers who after training transfer their know how to teachers of Grade one training colleges (ENIEG). Expertise from these training institutions will

help teachers to be able to know how to accept and manage children with special education needs. Other faculties of education should be created all over the country not only to foster on research on education but also to advance research on inclusive education, a condition sinequanon for quality education.

## **5.5 LIMITATIONS OF THE STUDY**

This study had some short comings link to the research process

The respondents (students were very busy to fill the questionnaire since it was administered in the period of mocks examination. Most students of the Premiere A4 Espagnol and Allemand were reading for the examination. Consequently, some questions items were poorly attempts because of stress.

The school administration did not provide sufficient research information for the researcher. This was experienced by the researcher when trying to find out information on the budgetary allocation of the school and on the overall population of the school. The school counsellors were hesitant to provide this information to the researcher even though he presented an authorisation of research signed by the Dean. Nevertheless, the researcher tried as much as possible to come out with valid and reliable results at the end of the research.

## **5.6. RECOMMENDATIONS OR SUGGESTIONS**

From the findings, the following recommendations were made since the education of the physically disabled involves everyone in the society.

Incorporating inclusion as a guiding principle typically requires changes in education system, and this change process is frequently faced with several challenges. It involves important shifts and changes at the systems as well as the societal level.

To understand change at all level, it is important to know what change looks like from different points of view. However, teacher, student, local and national government see change as

vital to understand how individuals and groups act and indeed react to each other. Performing school systems to become inclusive is not only about putting in place recently developed inclusive policies that meet the needs of all learners, but also about changing the culture of classrooms, schools, districts and universities. It is important to note that these change processes towards inclusion often on a small scale and involve overcoming some obstacles such as; existing attitudes and values, lack of understanding, lack of necessary skills, limited appropriate resources.

The following steps provide required questions to inclusive education practices. The researcher provides a step towards inclusive education checklist to assist Government and decision makers in decision making regarding inclusive education.

### **The Steps towards Inclusive Education Checklist**

The questions below can be used as a checklist to promote the interpretation of inclusive approaches in National Education Plan using the Universal Design for Education.

The answers will serve as a background when analysing the present status of the National Education Policy and the level of the inclusiveness. Findings can be used in discussions with responsible education authorities. Furthermore, they should be used as guidelines in advising on possible improvements in the National Education Policy.

The findings should serve as a source for the identification of the needs for capacity building for inclusive education. If the plan has already been completed, then the responses to these questions can serve as a guide to amending the plan based on addressing the issues that may have been overlooked during the initial planning Process.

### **Strategic Planning for Inclusion; Inclusion Matrix Worksheet through the Universal Design**

The worksheet which follows the checklist questions is intended as a tool to help identify and analyse Cameroon's current situation including its strengths( for example resources that are needed to support inclusion, challenges that need to be overcome; gaps in our plan or our system related to moving towards inclusion.

## **A-SITUATIONAL ANALYSIS**

- 1- Have intensive need analyses been undertaken to identify and address the needs and challenges of the children missing out of education or at risk of dropping out? If so, what are the findings?
- 2- Are any measures being taken with regards to data collection indicators and statistics to ascertain the magnitude of the marginalised and excluded children in the country?
- 3-What accommodations are made to ensure access for children with disabilities ethnic and language minorities?

## **B-POLICY, GOALS AND OBJECTIVES**

- 1-Which are the main action programmes in regard to marginalised, excluded and or vulnerable groups? Is there specific mention made of particular groups? Are children with disabilities and other groups specifically planned for?
- 2 -Are there specific policies in place to identify out-of- school children, provide speed up and second chance educational opportunities? Are there specific family-based strategies to support them on a financial and or emotional basis?
- 3-What are the linkages between formal and non-formal education in the plans for more inclusive education?
- 4- Do current educational policies favour particular groups at the expense of the marginalised ones? If so, in what ways? Does this create obstacles to inclusion?
- 6-Is there any policy statement with regard to excluded groups? Are any particular group specified?
- 7- What kind of priorities is reflected in the country's objectives of education? Do these priorities stimulate or discourage inclusion?
- 8- Does the plan include provisions or measures regarding access to the curriculum for learners?
- 9- Does the plan include provisions regarding physical access to the curriculum for all learners?
- 10-Are references made for Quality Education?

11- What are the main Objectives and targets for the education described in the plan? Does the plan make reference to EFA, MDGs and SDGs?

### **C- IMPLIMENTATION**

1-Who are the partners and service providers in the provision of education (other ministries, private individuals, non-governmental organisations)? Does the responsibility of education for certain categories of children lie with other ministries?

2 -How is education costs shared? Do parents or the families have to assume direct and or indirect costs for the educational process of their children?

3- Is education regarded as the right for all children? Are there mechanisms for the implementation of the Rights of the Child?

4- Do the plans reflect the readiness to deal with disasters or events that affect access to education?

### **D- MONITORING AND EVALUATION**

1- Is registrations data collected on all children who would allow identification of those not in schools?

2- Are there mechanisms to identify children already in schools but excluded from quality education?

3- Does the plan establishes a school – community mechanism to identify children not in schools and are ways identified to ensure they enrol and learn? Are children encouraged to identify peers in the community not in school?

### **E-CAPACITY BUILDING, STAKEHOLDERS INVOLVEMENT AND PARTICIPATION**

1 Which stakeholder (parents, learners, managers etc) have been consulted in the elaboration of the plan?

2 How do international conferences and research feed into policies and programming?

3 In which ways are parents and communities expected to be involved? To what extent are parents and communities supported, how and by whom?

4 What resources are allocated for plans or programme with regard to inclusion? What are additional sources of Support for Education (private sector, community and bilateral cooperation)?

**PLANNING MATRIX ACCORDING TO THE UNIVERSAL DESIGN IN EDUCATION**

<b>Indices of inclusion</b>	<b>Situational analysis</b>  <i>What is the current situation?</i>	<b>Policy, Goals, and Objectives</b>  <i>What actions are needed?</i>	<b>Implementation</b>  <i>How will the actions be taken and by who?</i>	<b>Monitoring and Evaluation</b>  <i>What information needs to be collected? How will you know what has been achieved?</i>
International treaties, tools, -references to inclusive education and National Education policy.	Emergency 2035, Quality Education for All by 2030, sustainable education.	The Law of Orientation(1998) Growth and employment strategy paper(2009), the Education sector Strategic Plan(2013),	Feasible methods of implementation, tried and tested quality assurance tools and usable across every level	Conduct and critically assess programmes aimed at evaluating how the global concept of universal design can best be transferred to the educational system
Reference to the physically disabled	-435 street children in Douala and Yaoundé(minas,2008) -294,813 are not enrolled in schools(World Bank, 2012)	Universal Declaration of Human Rights(1948) Salamanca conference(1994) Law of Orientation(1998)	Training of all people involved (school planners, architects, head teachers, school administration) and with participation of parents and pupils. Promote the establishment of local and municipal networks for all those interested in Universal design.	Conduct and critically assess programmes aimed at testing and evaluating how the global concept of universal design can best be transferred to the educational system
Physical infrastructures, transportation and facilities	Identify and comprehensively analyse the particular local material, fiscal, socio-spatial and infrastructural barriers that hinder or prevent children with	the Practical Guide on accessibility of persons with disabilities to infrastructures and public buildings	Even though will certainly not be successful as it traditionally refers to additional costly adjustments or rebuilding measures introduced at a later period for people with disabilities, the universal design approach may prove more adequate here, because it	Conduct and critically assess programmes aimed at testing and evaluating how the global concept of universal design can best be transferred to the educational system

	disabilities from attending school	launched( 2009)	considers the usability of products, services and facilities for all people from the very beginning.	
-Training -Activities	Lack of experts for inclusive architecture  Inadequate training of personnel	the publication of the Practical Guide on accessibility of persons with disabilities to education presented( 2010);	Disability ergonomics should be taught to designers, engineers, non-profits executives to further the understanding of what makes an environment wholly tenable and functional for individuals with disabilities.	Conduct and critically assess programmes aimed at testing and evaluating how the global concept of universal design can best be transferred to the educational system

Source: Fieldwork, 2017

### 5.6.1- To the ministry of Secondary education and policymakers

The ministry of Secondary education has to work in close collaboration with the ministry of social affairs as regard the infrastructure in order to modify some of the existing building or when new buildings are constructed they should make sure to implicate the physically disabled.

Research consistently demonstrates that without effective leadership for inclusive education, success will be difficult to achieve. Leaders must be knowledgeable supporters of inclusion who provide caring support for their staff (Hoppey & Mcleskey, 2013; Jones et al., 2013). It is in this perspective that the Cameroon government has undertaken measures to ensure the educational rights of all children and particularly those with disabilities. In decree 1009/1518 of 26<sup>th</sup> November 1990 fixing the modalities of the application of law No 83/013 of July 1983 relating to the protection of handicapped persons, the education of disabled persons is assured in ordinary school and in specialised education centres.

Added to this, law 2010/002 of April 2010 on the protection and promotion of handicapped persons stipulates that it is not enough to register these persons but much should be done to provide facilities, adequate material, follow up services from qualified persons. Not forgetting circular letter No 08/00067LC MINESUP/MINAS of 9<sup>th</sup> July 2008 relative to the reinforcement, amelioration of conditions and supervision of handicap students into government schools but some flaws still exist as regard the implementations of these laws . Even though some



efforts have been done to improve the accessibility of infrastructure much needs to be done to really implement inclusive education into schools.

Efforts have to be done in understanding and acknowledging inclusion as a continuing and evolving process creating learning environments that respond to the needs of all learners to achieve the greatest impact on their social, emotional, physical, and cognitive development.

Efforts have to be made in undertaking a broad, relevant, appropriate and stimulating curriculum that can be adapted to meet the needs of diverse learners, strengthening and sustaining the participation of pupils, teachers, parents and community members in the work of school providing educational settings that focus on identifying and reducing barriers to learning and participation restructuring the cultures, policies and practices in schools to respond to the diversity of students within the locality; identifying and providing the necessary support for teachers , other staff and pupils. Engaging in appropriate training and professional development for all staff and ensuring the availability of fully transparent and accessible information on inclusive policies and practices within the school for students, parents, supports staffs and other persons who are involved in the education of children (Winter & O'raw , 2010)

Government Bilingual High School Etoug-ebe should work in close collaboration with the National Centre for the Rehabilitation of Handicap persons (CNRPH). This state institution under the coordination of the Ministry of Social Affairs is found at about 400Metres from the school. The centre possesses well equipped school structures for handicap persons of all kind. The centre provides medications and therapy to handicap persons at an affordable price. Experts from the Ministry of social Affairs work in this centre and could be of great help to the administration of the Government Bilingual High School Etoug-ebe.

### **5.6.2. To teachers**

Teachers must accept ownership of the process and a commitment to all children in a class. In addition, teachers must be highly skilled practitioners (Florian, 2012; Smith & Tyler, 2011).

Positive attitudes must be evident if inclusive education is to be successful, and teachers

must believe that all students are capable of learning and contributing to the classroom community in positive ways (Jordan et al. 2010, Sharma, 2012).

Teachers' needs such as planning time, training personnel resources, material resources, class size and consideration of the severity of the disability (Eisenman, Pleet, Wandry & Mccuiley, 2011) should be given maximum priority. More so, trained and knowledgeable teaching assistants are very helpful in facilitating inclusion, as they work under the direction of the classroom teachers (Symes & Humphrey, 2011)

Based on individual needs of learners' expectation and interest of the learners, teachers should employ more cooperative learning and peer tutoring in each teaching and ensuring relevance and flexibility in content.

Teachers should always make sure to implicate the physically challenged in group work even if he or she cannot perform the task she should act as a leader of that group as it would help her to socialize and integrate herself with others not seeing herself as different from the others.

Teachers should make sure classroom climate is friendly and welcoming through intense increased participation, interaction and closeness between teacher and learners and amongst learners themselves.

Teachers should promote the values of all cultures across their teaching by sensitizing the learners on the right of all human beings and even pasting the rules and regulations of the class on the wall and preaching equality of human beings irrespective of their race and appearance.

Teachers should actively cooperate with the parents for the welfare of their children as well as with the administration.

### **5.6.3. To parents**

The involvement of the family is an important and essential element in the success of inclusive education. True home-school collaboration is necessary for success (stivers et al 2008).

Parents should be able to accept the handicap of their children because if they do not this would help to demoralize the child. They should not stay away from these children and abandoned them to themselves rather send them to school because education is a fundamental human right.

Parents should cooperate with teachers and the school in general to ensure the welfare of their children by assisting the children in providing their school needs as regard the upbringing of their children in school.

#### **5.6.4. To the society**

We should all develop a positive attitude of acceptance, tolerance; mutual respects of human rights and learn to live together with one another despite our differences in the socio economic and cultural backgrounds. We should be able to discard all negative attitudes towards handicap persons and by so doing we would be able to put an end to all forms of discrimination and stigmatization against persons living with disabilities and build an inclusive society.

#### **5.6.5 To the physically disabled**

The involvement and active engagement of the child is an essential part of the process. Education is no longer something done to children but a process that a child owns and should actively participate in (Messiou, 2012).

The physically disabled should just adopt coping strategies in order to pursue their learning in Lycee Bilingue Etoug-ebe.

They should equally strive to integrate into society and adapt to the system by always being early in any school activity.

#### **5.6.6 The Curriculum**

Flexible curriculum and the use of individualized instruction and plans are important elements of a successful inclusion program (Osberg & Biesta, 2010).

### **5.6.7 Suggestion for further research**

For further research investigation needs to be done on the training of teachers, evaluation practices and teaching methods used by teachers in teaching in inclusive primary schools.

An investigation should be done in the economic access of physically disabled students in inclusive schools.

## GENERAL CONCLUSION

Like most scientific studies, this study consists of five chapters: an introduction, a chapter on literature review and theoretical framework; a chapter on research methodology, a chapter on presentation and interpretation of results and finally a chapter on discussion of findings, theoretical and pedagogical implications, difficulties, recommendation and conclusions.

Chapter one served as a prelude to other chapters and in this chapter a background of the study and the statement of the problem stated. This chapter also contained the objectives of the study with the general objective which is examined if school infrastructure permits or facilitates inclusive education of the physically disabled followed by three objectives, then a general research question, how does school infrastructure permits or facilitates inclusive education?, the significance of the study were also highlighted and the scope and delimitation of the study was done as well.

Chapter two was concerned with a review of relevant and related literature. It provided a conceptual framework for the investigation; it looked at existing literature on variables and adopted three theoretical frameworks which provided empirical backing which include the universal Design Approach, the social model of disability theory of Mike Oliver and Bronfenbrenner's Ecological models of human development. Chapter three explained the research method adopted and research design used while giving the description of the population, the theoretical and pedagogic implications, difficulties, recommendations, suggestions, and conclusions made.

From the above discussion, it is evident that infrastructures influences inclusive education of the physically disabled and inclusive education still remains a challenge to be met because teachers are not adequately trained to teach effectively inclusive classrooms. Inclusive education is based on quality teaching that takes into account individual needs since all learners are expected to attend the same school in heterogeneous groups with regards to ability, interest, motivation, needs, gender background or origin.

The ultimate goal of inclusion is to end all forms of discrimination by recognising and responding to diverse needs of every learner's peculiarities in school and ensure

The ultimate goal of inclusion is to end all forms of discrimination by recognising and responding to diverse needs of every learner's peculiarities in school and ensure the welfare of humanity

Moreover, a child's exclusion from education means failure to equip the child with the professional and social competences needed in order to access essential knowledge and exert an autonomous and responsible existence. What is the main aim of educating a physically disabled person to become autonomous and do things for him or her own self? Achieving the goals of inclusive education implies giving everyone equal opportunities to have access to quality education without any form of discrimination, and the development of their full competences and potentials because these have talents which we need to explore by implicating them in the process of learning.

In all, inclusive education will therefore pave the way to prosperity for individual in particular and for society at large. An inclusive education should create an inclusive school environment that involves a commitment to adapt school to children rather than requiring children to adapt to norms, styles and practices of inflexible schools. It requires an accessible and flexible curriculum design to serve every child and capable of providing possibilities for adjustment to individual needs. It should also stimulate teachers to seek solutions that can be matched with the needs and ability of each and every student especially the physically disabled of Lycee Bilingue Etoug ebe especially when they are writing end of term exams for those who are late some few minutes allocated for them. Finally, we can conclude that Cameroon is practicing integration and inclusion because they are not available infrastructural facilities to persons with handicap in these schools.

## REFERENCES

- ABDOLL, C. & .Barberton, C. (2014) *Mud to bricks: A review of school infrastructurespending and delivery*. Pretoria: Pretoria University Law Press
- **Ali, M. M, Mustapha, R &Jelos, Z. M.** (2006).*An empirical study on teachers'perceptions towards Inclusive Education in Malaysia, International Journal of Special Education, Vol. 21,*
- Adeola, F. (2009).*Education for what purpose? 49<sup>th</sup> Founders' day lecture*, University of Nigeria, Nsukka, 7<sup>th</sup> October
- AmarjitMahajan (1984): *Concessions and Programmes for Physically Handicapped intheState of Punjab*, at p.1.
- Amin, M.E, (2005), *Social Science Research Concept, Methodology and Analysis*. Uganda: Makere printers. University Kampala
- Anima sen(1988): *Psycho-social Integration of the Handicapped*, Mittal Publications, Delhi,at p.14
- American Standards Association (1961). *American standard specifications for making building and facilities accessible to and usable by the physically handicapped*, Chicago: National Society for Crippled Children and Adults, Inc.
- Armstrong, D, Armstrong A. C, & Spandagou, 1. (2011). *Inclusion by choice or by chance?* International journal of inclusive education, Article 2. New York: United Nations, Url: <http://www.un.org/disabilities/convention/conventionfull.shtml> (11 Jan 2008)
- Avramidis, E & Norwich B (2002) *Teachers' attitudes towards integration/ inclusion: A review of the literature*. European Journal of Special Education, 17(2), 129-147.
- Babbie, E & Mouton, J(2011). *The Practice of social Research*. Oxford University Press
- Baglieri, S, Bejoian, L.M, Broderick A, A, Connor, D.J & Valle, J(2011). *(Re) claimingInclusive education toward cohesion in education Reform” Disability Studies Unravels the Myth of the normal child*. Teachers College Record
- Barnes, E & Berrigen, C & Bilken, D (1987) *What is the Difference ‘ Teaching positiveattitudes towards people with disabilities*. Syracuse, N.Y Human Policy Press

- Barnes, C (1996) *'the social model of Disability: myths and misconceptions*, Coalition, August, [Http://www.disability-archive.leeds.ac.uk/](http://www.disability-archive.leeds.ac.uk/) accessed 27/10/2010
- Beckett, A, E. (2009). *Challenging disabling attitudes, building an inclusive society' considering the role of education in encouraging non-disabled children to develop positive attitudes towards disabled people*. British Journal of Sociology of education.
- Berk.L.E( 2000) Child Development(5<sup>th</sup>ed). Boston; Allyn and Bacon, Berlach, R, G & Chambers, D. J (2011).*Interpreting inclusivity: an endeavour of great proportions*. International Journal of inclusive Education,
- Blaxer, L, Hughes, C & Tight, M (2011) *How to research* (2<sup>nd</sup>ed). Buckingham; Open University Press.
- British Council of Disabled People(1981) *The Social Model of Disability*,Derby,Uk
- Bronfenbrenner, U.(1979) *the ecology of human development*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner.U (1989), *Ecological systems theory*.*Annals of Child Development*.Vol 6.
- Bronfenbrenner, U (2004). *Making human beings human; Bioecological perspectives on human development*, Sage Publications.
- BrymanA (1993). *Quantity and Quality in social research*.London; Routledge.
- Brown, A. L (1994). *The advancement of learning*. Educational Researcher
- Burning, R H, Schraw, G J, &Ronning, R. R (1995). *Cognitive psychology and Instruction* (2<sup>nd</sup>ed). Englewood Cliffs; NJ: Merrill/Prentice-Hall, Inc.
- Burns, N & Grove, S.K (2003).*The Practice of nursing research: Conduct, critique and utilisation*. 5<sup>th</sup>ed St. Louis: Elsevier Cambridge, MA: Harvard University Press. (Original Work published in 1933) *challenges for early childhood special education*. Journal of special Education. Collins. (1998). English Dictionary
- Christina Tilstone and Richard Rose (2002), *strategies to promote inclusive practices* ; amazon u.k
- Crisp R (2002).*A counselling framework for understanding individual experiences of socially constructed disability*. Disability Stud. Q. 22: 20-3
- CSIE (2002), *Defining inclusion*. Retrieved 25 August, 2008, from <http://inclusion.uwe.ac.uk/csie/student02.htm>
- Cussen,G. et al (1978) Cerebral Palsy; A Regional Study. Journal of the IMA. November 30, 1975. Vol7J, No 17 pp 570-571.



- Daniels, H, Garner, P. (Eds.) (1999). *Inclusive Education: Supporting Inclusion in Education* DeVos, A.S, Strydom, H. Fouche and Delport C.S.L (2005). *Research at grassroots: for the social science professional* (3<sup>rd</sup>ed.). Pretoria. Van Schaik
- Denga, D. (2005). *Introduction to Sociology of Education*. Uyo; Magnet Publishers
- Dunn, L.M. (1968). *Special education for the mildly mentally retarded: Is much of it justifiable?* *Exceptional Children*, 35 (1), 5-22.
- Educational Research Services (1963). *Program of requirements for a school for severely physically handicapped*. Albertson, N.Y.: Human Resources.
- **Engelbrecht, P. & Green, L.** (2007). *Responding to Challenges of Inclusive Education in South Africa*. Pretoria: Van Schaik.
- **Engelbrecht, P., Oswald, M., Swart, E., Kitching, S. & Eloff, I.** (2005). *Parents' Experiences of Their Rights in the Implementation of Inclusive Education in South Africa*, *Journal of School*
- Epstein, J. (2010). *School, family, and community partnerships: preparing educators and improving schools*. Boulder, CO: Westview Press.
- Esterberg, K.G. (2002) *Qualitative methods in social research*. New York: McGraw-Hill publishers
- Fetterman, M (1989), *Ethnography: Step by Step*. Thousand Oaks, CA: Sage
- Finkelstein, V. (2001) *A personal journey into disability politics*, Leeds, <http://www.disability-archive.leeds.ac.uk/> Accessed 13/2/2011
- Fisher, H. (2012), *Progressing towards a model of intrinsic inclusion in a mainstream primary school: SENCo's experience*. *International journal of inclusive education*, 16(12), 1273-1293
- Foleng, P.A, Ngo, L.F & Tchani (2007). *Citizenship: a course book on social and moral education for Cameroon colleges*: Bamenda Unique Press
- Forlin, C. (1997), *Teachers' perceptions of the stress associated with inclusive education and their methods of coping*. Paper presented at the National Conference of the Australian Association of Special Education, Brisbane, September.
- Forlin, C. (2013a), *Issues of Inclusive Education in the 21<sup>st</sup> century*, *Journal of learning science*

- Fraenkel.J.R. & Wallen.N.E.(2006). *How to design and evaluate research in education*, 6<sup>th</sup>ed, McGraw-Hill, New York.
- Goldsmith, S. (1963) *Designing for the Disabled*. London: RIBA, technical information service.
- Goodley, D (2007), *Towards socially Just Pedagogies: Deleuzoguattarian, critical disability studies*. International journal of Inclusive Education.
- Guidelines for inclusion; *Ensuring Access to Education for All*, UNESCO 2005
- Haridakis, P, Piele, L, Rubin, A & Rubin, R.(2010). *Communication research strategies and sources* (7<sup>th</sup>ed). Boston, MA: wadsworthcengage Learning.
- Hong Kong Review of Rehabilitation program Plan (1994/1995-1998/1999)(JUNE,1996), *By the rehabilitation division, Health and welfare branch, Government secretariat*,
- International Bureau of Education, (2008), *Report on the international conference on education: sub themes and regional trends on Inclusive education*; Geneva, Switzerland. Unesco IBE.
- Indiana Department of Education, (2010), *Definition of terms*. Indiana accountability system for Academic Progress, Retrieved from [Http://www.doe.in.gov/asap/definitions.html](http://www.doe.in.gov/asap/definitions.html)
- JONES, H. (2011): *Inclusive design of school latrines – how much does it cost and whobenefits?*([http://www.eenet.org.uk/resources/docs/wedc\\_inclusive\\_design\\_of\\_school\\_latrines\\_2011.pdf](http://www.eenet.org.uk/resources/docs/wedc_inclusive_design_of_school_latrines_2011.pdf))
- Joint Circular letter No 08/0008/LC/MINESUP/MINAS of July 2008
- Joint circular letter No 002/LCC/MINMAP/MINTP/MINDHU/MIAS of 16 July 2013
- Jupp, V. (2006), *Dictionary of Social Research Methods*. New York: sage publications.
- Kochung, E.J (2010), *the role of Higher Education in promoting inclusive Education. Being proceedings of the international workshop on inclusive education in Higher Education*, University of Buea, 26<sup>TH</sup> to 29<sup>th</sup> May.
- Lalvani, P. (2013), *privileged, compromise, or social Justice: teachersconceptualisation ofInclusive education*. Disability and society
- Leroy, B, & Simpson, C. (1996). *Improving student outcomes through inclusive educationsupport for Learning*

- Lipsky, D & Gartner, A (1996). *Equity requires inclusion: the future for all students with disabilities* and C. Christensen & Risvi (Eds), *Disability and the dilemma of education and justice*, Buckingham, England, Open University Press.
- Law No 2010/002 of 13<sup>th</sup> April 2010
- Love, H, D & Walthall, J, E.A (1977) *handbook of medical, educational and psychological information for teachers of the physically handicapped children*, Springfield, 111: Charles C Thomas
- M. Q. Patton (1990). *Qualitative evaluation and research method*, 2<sup>nd</sup> ed. Thousand Oaks, CA. Sage
- McMillan J.H & Schumacher S (2006), *Research in Education, A conceptual introduction* (5<sup>th</sup> ed). New York: Longman publishers
- Mercer, J.R.(1970). *Sociological perspectives on mild mental retardation*. In H.C. Haywood (Ed.), *sociocultural aspects of mental retardation*, Englewood Cliffs, NJ: Prentice Hall.
- Meulenberg-Buskens, I (1997), *free attitude interview manual 1. Research design explained*. 5<sup>th</sup> ed. Belmont, CA: Wadsworth
- Mitchell, M.L & Jolley, J.M (2004), *Research design explained*. 5<sup>th</sup> ed. Belmont, CA: Wadsworth
- Mmbaga, D.R. (2002). *The inclusive classroom in Tanzania: dream or reality?* (vol.59). Stockholm: Institute of International Education, University of Stockholm.
- Mouton, E.B.J & Prozesky, V.B. (2011), *the practice of social research*. South African edition, Cape Town. Oxford University Press
- Mzeka, P.N (1989). *Legislation and school administration*: Lagos: Chuka printing Company Limited.
- Ngwa, E.S.(2012), *Assessment of inclusive education policy implementation at the universities of Ibadan, Nigeria and Buea, Cameroon*. University of Nigeria Nsukka: Unpublished M.Ed theses.
- Njilia, G.M. (2010), *Pedagogic pre-disposition and the attitudes of teachers towards inclusion*. Yaounde.
- Nnamdi Asika (1991). *Research methodology in the behavioral sciences*, Longman Nigeria Plc

- **O'Connor, U** (2007). *Parental concerns on inclusion: The Northern Ireland Perspective: International Journal of Inclusive Education*. Vol. 11, No. 5-6, pp. 535-550
- O'Leary, Z. (2005). *Research real world problems(a guide to methods inquiry)*, London: Sage publications
- Odom,S.L, Buysse, V &Soukakou, E (2011). *Inclusion for young children with disabilities: A quarter century of research perspectives*. Journal of early intervention, 33 (4), 344-356
- Oliver, M (1996b). *Understanding disability: from Theory to Practice*, Basingstoke: Macmillan ( now Palgrave Macmillan)
- Opertti, R, &Belalcazar,C (2008). *Trends in inclusive education at the regional andinternational levels: issues and challenges*. IBE/ UNESCO
- Paquette, D. & Ryan, J. (2001) *Bronfenbrenner's Ecological Systems Theory*. <http://pt3.nl.edu/paquetteryanwebquest.pdf>. (9.9.2007)
- Patton M.Q (2002), *Qualitative Evaluation and Research Methods*, (3<sup>rd</sup>Ed.). Thousand Oaks, CA: Sage publications, Inc.
- Patton M.Q (2011).*Qualitative Evaluation and Research Methods*. (3<sup>rd</sup>ed.). Thousand Oaks, CA: Sage publications Paul H. Brookes
- **Peters, S.** (2007). *Education for All: Historical Analysis of International Inclusive Education Policy and Individuals with Disabilities*. *Journal of Disability Policy Studies*, 18(2) pp. 98-108
- Pijl, S.J., & Meijer, C. (1994).*New perspectives In Special Education*, London: Routledge.
- Polit, D.F & Beck, C.T (2004).*Nursing research: principles and methods*. (7<sup>th</sup>ed) Philadelphia: Lippincott
- Polit, D.F & Beck, C.T (2004).*Nursing research: generating and assessing evidence fornursing practice*. (8<sup>th</sup>ed) Philadelphia: Lippincott
- Pomeroy &janet. (1964), *Recreation for the physically handicapped*. New York: Macmillan
- R.C Bogdad& S.K Biklen (1998) *Qualitative research for education;An introduction totheory and methods*. ( 3<sup>rd</sup>ed). Boston :Allyn and Bacon
- Rama Mani (1974): *The physically Handicapped in india*, supra note 5

- RAPP, W. H. (2014) *Universal Design for Learning in Action: 100 Ways to Teach AllLearners*. Baltimore, London, Sydney: Paul H. Brookes Publishing Co.
- Republic of Cameroon, (1998). *Law No. 98/004 of 14<sup>th</sup> April laying down Guidelines for Education in Cameroon*
- Reynolds, M. C, and Ainscow, M (1994). *Education of children and youth with specialneeds: an international perspective*. In T. Husen& T. N. Postlewaite (Eds), the international encyclopedia of education (2<sup>nd</sup>ed). Oxford :pergamon
- Rodney, W. (1974), *How Europe Underdeveloped Africa*. Washington, D.C. Howard University Press
- Rogoff, B. (1990). *Apprenticeship in thinking*. Oxford: Oxford University Press
- Ronald L. Mace (2013), college of design, NC State University Design.ncsu.edu. Retrieved 2013-07-26
- S. Gray Garwood (1983) *educating the young handicapped children, a developmentalapproach*, second edition, aspen system corporation.
- SAGAHUTU, J. B., Malachie T. & .Struthers, P. (2013) *Physical Environmental Barriersto School Attendance among Children with Disabilities in two Community BasedRehabilitation Centres in Rwanda*. In: Rwanda Journal of Health Sciences, 2, 1, 10 - 15.(<http://www.ajol.info/index.php/rjhs/article/view/85423>)
- Sankange, S (2013). *Inclusive education at primary school: a case study of one primaryschool in Glen view/Mufakose education District in Harare, Zimbabwe*. International journal of social sciences and education.
- Sarantakos, S (2000). *Psychology* (6<sup>th</sup>ed). New York: Macmillan
- Saunders S. &Kardia, D (2009). *Creating inclusive college classrooms*, London: University Press.
- Save the children (2002). *Schools for all including disabled children in education*. London
- Sebba J and Sachdev, D. (1997), *What works in inclusive education?* Essex , UK: Bernardo's Publications. Special Education.
- Stubbs, S.( 2002). *Inclusive education where there are few resources*, Atlas Alliance, Norway.

- Schoenbohm, W.B (1962) *Planning and operating facilities for crippled children*, Springfield III: Charles C. Thomas
- Sutton, J.P & Sutton; C.J (1995), *Strategies for struggling learners: a guide for the teaching of parents*. Simpsonville: Exceptional Diagnostics
- Tanyi, M. E., (2002). *The student's adjustment inventory manual*. Ife: *Ife psychologia an internationalJournal*. 10. No. 1, Pp.1-14.
- Tanyi, E, M (2009). *Major theories of learning:the processes of why, how and when welearn*. Yaounde: African Publication.
- Tomlinson, S.(1981). *Educational sub normality: a study in decision making*. London; Routledge and kegan Paul.
- THEUNYNCK, S. (2009) *School Construction Strategies for Universal Primary Educationin Africa: Should Communities be Empowered to Build Their Schools?* Washington: World Bank Publication
- Tremblay, P. (2008). *Inclusive education: from theory to practice*. Universitelibre de Bruxelles.
- Tukov, M.(2008) , *The education of children with special Needs in Cameroon*
- UNESCO (1949).*Universal Declaration of Human Rights 1948*. New York: United States
- UNESCO (1994).*The Salamanca Statement and Framework for Action on Special Need Education*, (Paris, UNESCO).  
**UNESCO Paper ED-2001/WS/2(2001): Including the excluded: Meeting diversity in education: Examples, from, Romania.**
- UNESCO (2006).*Convention on the rights of persons with disabilities*  
**UNESCO (2006).EFA Global Monitoring Report: Literacy for life**, UNESCO, Paris.
- UNESCO (1990).*World Declaration on Education For All, meeting basic learning needs*, Paris,: Unesco
- UNESCO (1994).*World conference on special education: access and quality*. Salamanca, spain 7-17 june 1994, Salamanca, Unesco .
- UNESCO (2000). *Dakar Framework Of Action*, Paris, Unesco
- UNESCO (2003). *Overcoming Exclusion Through Inclusive Approaches In Education;A challenge and a vision*. Paris, Unesco.

- **UNESCO** (2005). *Guidelines for inclusion; ensuring Access to Education for All*, Unesco, Paris
- **UNESCO** (2009). *Defining an inclusive agenda: reflection around the 48<sup>th</sup> session of the international conference on education*. Geneva , Switzerland
- **UNESCO** (2012). *Education: addressing exclusion*.
- UPIAS (1976), *fundamental Principles of Disability*. London; Union of the physically impaired against segregation.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wiles W. & Bondi C, (2011). *Curriculum Development. A Practical Guide*. New York; Pearson.
- Walker. J.H. Thomas M Russel. IT. “*Spina Bifida and the parents*”
- Wirtz, M.A (1965) *something for the special child*. American Education.
- Winter, E, & O’ Raw, P. (2010). *Literature review of the principles and practices relating to inclusive education for children with special educational needs*. ICEP, Europe, 2010
- **Webster, J. & Watson, R. T.** (2002). *Analysing the past to prepare for the future: Writing a Literature review*. MIS Quarterly Journal. Vol.26, No 2. *Psychology International*. London. Sage. Vol. 26(4): 459-477.

# **APPENDICES**

## **APPENDIX A**

### **QUESTIONNAIRE**

#### **SCHOOL INFRASTRUCTURES AND INCLUSIVE EDUCATION: AN ANALYSIS OF THE CASE OF THE PHYSICALLY IMPAIRED STUDENTS IN LYCEE BILINGUE ETOUG-EBE, YAOUNDE**

The purpose of this study is to find out whether school infrastructure is adapted to inclusive education practices at Lycee Bilingue Etoug-ebe. It is anticipated that the results would be useful in assisting professionals of education in decisions making relative to inclusive education. The information given will be treated as confidential therefore be candid in expressing your opinions as much as possible. Your anonymity is assured- no individual name is required only aggregate data would be presented as results.

***INSTRUCTIONS: please tick(√) the appropriate response where necessary***

#### **Section 1- IDENTIFICATION**

1. Gender  
a) Female                      b) Male
2. Age.....
3. Class.....
4. Are you physically handicapped  
a) YES    b) NO

#### **Section 2- LEVEL OF ENROLMENT OF THE PHYSICAL CHALLENGED**

5. Do you have any physically handicapped students in your class?  
a) YES            b) NO
6. If YES, how many are they?.....
7. Given that we are in the Third term (May 2017), have any of them dropped out from school?  
a) YES            b) NO



### **Section 3- SCHOOL BUILDINGS**

8. How many storey buildings are there in your school?  
a) One    b) Two    c) Three    c) Others.....
9. How do you access these storey buildings?  
a) Through Stairs                      b) Through Elevator  
b) C) Through a Flat slop surface d) Through Stair and flat slop surface
10. Determine the size of the storey buildings in terms of largeness  
a) Very small    b) small    c) medium    d) large
11. Are there toilets at each level of the storey buildings?  
a) YES    b) NO
12. If YES, are they adapted for the physically handicapped?  
a) YES    b)NO
13. Determine the size of the classrooms in terms of largeness  
a) Very small    b) small    c) medium    d) very large
14. Determine the size of the classroom doors in terms of largeness  
a) Very small    b) small    c) medium    d) very large
15. Are there benches for physical handicapped in your classroom?  
a) YES    b) NO
16. If YES, how are they organised?  
a) Mixed with other benches    b) Found in a particular section of the classroom
17. To whom are these benches given priority?  
a) Those in wheelchairs    b) Those in crushes  
c) For both                      d) the valid
18. How accessible is the teacher's floor to physically handicap of your classroom?  
a) Stair                      b) Flat slop surface                      c) Both  
c) The same level with students' floor

**Section 4- SCHOOL ENVIRONMENT**

INSTRUCTION: Please tick (√) where appropriate.

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

	<b>a) Accessibility to administrative blocks</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
19	Entrance to the principal's office is made up of stairs				
20	Entrance to the Discipline Masters' offices are made up of stairs				
21	Entrance to the vice principals' offices are made up of stairs				
22	Entrance to the staffrooms are made up of stairs				
23	Entry to the computer lab is made up of stairs				
24	Entrance to the different toilets are made up of stairs				

**THANK YOU VERY MUCH FOR YOUR TIME**