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INCLUSIVE EDUCATION PRACTICES AND CURRICULUM IMPLEMENTATION IN PUBLIC SECONDARY SCHOOLS IN MFOUNDI DIVISION

A Dissertation defended on 21ST of July 2023 for the fulfilment of the requirement of the Award of a Master's Degree in Education

Specialty**: CURRICULUM DEVELOPMENT AND EVALUATION**

By

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B.A in Education

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CERTIFICATION

This is to certify that this thesis entitled "Inclusive Practices and Curriculum Implementation in Public Secondary Schools in Mfoundi Division" submitted to the Department of Curriculum and Evaluation, Faculty of Education in the University of Yaounde 1 is the original work of Nji Evangeline Nyoma Matricule 20V3339 and was carried out under my supervision. The work has been duly acknowledged and referenced.

Prof. MAINGARI DAOUDA

DATE

SIGN

DEDICATION

To my beloved mother Nji Pascaline

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LIST OF ABBREVIATIONS

CAST	Centre for Applied Special Technology
CRPD	Committee on the Right of Persons with Disability
DFID	Department for International Development
EHA	Education for Handicapped Children Act
ICT	Information Communication and Technology
IDEA	Individuals with Disabilities Education Act
IE	Inclusive Education
IPP	Individualized Program Plan
ISP	Individualized Support Plan
MINEDUC	Ministry of Basic Education
NGO	Non-Governmental Organisation
OECD	Organization for Economic Cooperation and Development
SDGs	Sustainable Development Goals
SEN	Special Education Needs
SEND	Special Education Needs and Disabilities
SLSOS	School Learning Support Office
UD	Universal Design
UDL	Universal Design for Learning
UN	United Nation
UNESCAP	United Nation Economic and Social Commission for Asian and Pacific
UNESCO	United Nation Educational Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund

ABSTRACT

Inclusive education practices have gained prominence worldwide as a means to ensure equitable access to quality education for all students, regardless of their abilities, backgrounds, or learning needs. This research delves into the landscape of inclusive education practices and curriculum implementation in public secondary schools in Mfoundi division. The implementation of inclusive education practices in public secondary schools in Cameroon faces substantial challenges on teacher's preparedness and training on inclusive education and curriculum implementation. The curriculum plays a pivotal role in inclusive education to meet the diverse learning needs of students. The aim of this study is to investigate the effect of curriculum implementation on inclusive education practices in public secondary schools. This study focuses on teacher's pre-services training, teaching materials, teaching methods and evaluation methods. This study employs a mixed method approach, questionnaire, interviews, and classroom observations, to examine the extent to which inclusive education practices are integrated into the curriculum. The findings reveals that pre-service training provided insufficiency of knowledge, skills and attitude. Teaching materials predict 49.1%, teaching method predicted 57.8% and evaluation methods predicted 48.1% on inclusive education practices on curriculum implementation. The findings reveals that curriculum implementation has a statistically significant effect on inclusive education practices. The finding also reveals that Cameroon has made notable strides in recognising the importance of inclusive practices in secondary schools. Also the secondary education face some Challenges on curriculum implementation for inclusive education practices such as limited teacher training in inclusive pedagogy, limited use of teaching materials, method and evaluation. More so, the research uncovers the pivotal role of curriculum adaptation and differentiation in fostering inclusive education. Effective strategies such as flexible assessment methods and diversified instructional materials, are identified as key drivers of success in inclusive classrooms

Key words: Inclusive education, curriculum implementation, teaching methods.

RESUME

Les pratiques d'éducation inclusive ont gagné en importance dans le monde entier comme moyen d'assurer un accès équitable à une éducation de qualité pour tous les élèves, quels que soient leurs capacités, leurs antécédents ou leurs besoins d'apprentissage. Cette recherche se penche sur le paysage des pratiques d'éducation inclusive et la mise en œuvre des programmes scolaires dans les écoles secondaires publiques de la division du Mfoundi. La mise en œuvre des pratiques d'éducation inclusive dans les écoles secondaires publiques du Cameroun est confrontée à des défis importants en matière de préparation et de formation des enseignants à l'éducation inclusive et à la mise en œuvre des programmes scolaires. Le programme scolaire joue un rôle essentiel dans l'éducation inclusive pour répondre aux divers besoins d'apprentissage des élèves. L'objectif de cette étude est d'examiner l'effet de la mise en œuvre du programme scolaire sur les pratiques d'éducation inclusive dans les écoles secondaires publiques. Cette étude se concentre sur la formation préalable des enseignants, le matériel pédagogique, les méthodes d'enseignement et les méthodes d'évaluation. Elle utilise une approche méthodologique mixte, un questionnaire, des entretiens et des observations en classe, pour examiner dans quelle mesure les pratiques d'éducation inclusive sont intégrées dans le programme d'études. Les résultats révèlent que la formation initiale ne fournit pas suffisamment de connaissances, de compétences et d'attitudes. Le matériel pédagogique prédit 49,1 %, la méthode d'enseignement 57,8 % et les méthodes d'évaluation 48,1 % des pratiques d'éducation inclusive sur la mise en œuvre du programme d'études. Les résultats révèlent que la mise en œuvre du programme scolaire a un effet statistiquement significatif sur les pratiques d'éducation inclusive. Les résultats révèlent également que le Cameroun a fait des progrès notables dans la reconnaissance de l'importance des pratiques inclusives dans les écoles secondaires. L'enseignement secondaire est également confronté à certains défis dans la mise en œuvre du programme d'études pour les pratiques d'éducation inclusive, tels que la formation limitée des enseignants à la pédagogie inclusive, l'utilisation limitée du matériel, des méthodes et de l'évaluation de l'enseignement. En outre, la recherche met en évidence le rôle central de l'adaptation et de la différenciation des programmes d'études dans la promotion de l'éducation inclusive. Des stratégies efficaces, telles que des méthodes d'évaluation flexibles et du matériel pédagogique diversifié, sont identifiées comme des facteurs clés de succès dans les classes inclusives.

Mots clés : Éducation inclusive, mise en œuvre du programme scolaire, méthodes d'enseignement.

CHAPTER ONE
INTRODUCTION

Worldwide, inclusive education practices have been emphasised as a primary goal in providing instruction and education (Daiute et al., 2021) in an equal and fair learning environment for every student (UNESCO, 2015; Tchombe, 2017). There has been continued advocacy for inclusion and a global commitment to encourage and improve education for all (Ainscow, 2020). Since the Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994). The Sustainable Development Goal (SDG4) demonstrates the global commitment to inclusive education, ensuring inclusive and equitable education and promoting lifelong learning opportunities for all (United Nations, 2015). The Agenda for Sustainable Development for 2030, built on the Salamanca Statement in SDG 4, simplified the concept of inclusive education, emphasizing education for all, and pledged to "leave no one behind." In the Cali Commitment (2019), countries joined to make education settings where everyone is valued and belongs, and diversity is seen as enriching.

There has been a methodological shift from the traditional "one-size-fits-all" model toward individualized teaching and learning, which provides a starting point for educational equity (Lindner & Schwab, 2020). This has been verified through several international conventions, which include: The Salamanca statement on special needs education, UNESCO (1994), the UN Convention on the Right of the Child (1989), and the UN international convention on the Right of the Persons with Disabilities (2000), Sustainable Development Goals (2015). Education is understood as a tool that can be used to reduce poverty, improve the lives of individuals and groups, and transform societies (Grubb & Lazerson, 2004). Inclusive education is considered a process that involves identifying and removing barriers to access, learning, and achievement for all students (Ainscow, 2020; Tchombe, 2017) and an ideal result or outcome of such practices (Antoninis et al., 2020). Inclusive practice means learning and teaching activities responsive to student diversity (Ainscow, 2020; Tchombe, 2017). That is, learning experiences are designed with students' strengths and needs in mind, and consideration is given to how all students can actively and meaningfully participate in their learning and be appropriately challenged (Ainscow, 2020; Booth & Ainscow 2011). Barriers to students' learning and participation are identified and addressed

(Dally et al., 2019). Differences and diversity should be embraced and responded to positively (Finkelstein et al., 2021). These inclusive practices include the capacity to modify and differentiate instruction to accommodate student diversity and to set personalized goals which are appropriate to students' individual profiles (Yuh, & Shey, 2008) To implement inclusive education, Dally et al. (2019) state that teachers require not only skills, knowledge, and inclusive attitudes but the efficacy to support and cater to student diversity effectively

Background of the study

Worldwide in education practice, there is a move to inclusive education policies emanating from the 1948 Universal Declaration of Human Rights. Many treaties, declarations and international conventions commit governments of countries to move to inclusive education. To realize this, some approaches have been adopted to promote inclusive education systems. Among them are the Human Rights Based Approach (UNICEF, 2018) which have significant implications for curriculum and practice concerning curriculum design, curriculum content, instruction strategies, choice of resources, and grouping of learners, among others.

Historical background

Before the emergence of the inclusive system, it was the concept of integration or mainstreaming practised (Tchombe *et al.,* 2014; Kenneth, Wamba, & Maingari, 2018). The idea of integration is based on integrating children with disabilities according to their needs and the severity of their conditions (Tchombe *et al.,* 2014). Some children with disabilities could benefit from total integration, while others benefit from units/particular classes or resource rooms. However, since the middle of the nineties, the American inclusive education system has spread like fire worldwide. Inclusive education is an outgrowth of several social and political movements that have emerged since the middle of the 20th century. In the United States, the Civil Rights movement of the 1950s and 1960s intensified awareness that even in liberal democratic societies, many individuals were still being excluded from social institutions, including schools. By the late 1960s and 1970s, movements such as second-wave feminism, gay rights, and disability rights arose to combat other forms of exclusion, such as those due to gender, ethnicity, sexual orientation or disability. One significant outcome of these movements, both in the United States and many other countries, was the passage and implementation of laws and policies designed to ensure citizenship rights and opportunities of

all kinds, including access to education. In the United States, federal and state laws were passed, mandating that children with disabilities were entitled to public education and that the government and its schools must actively facilitate these opportunities.

The first federal law was the Education for Handicapped Children Act (EHA) in 1975. Legal theorist Martha Minow has pointed out that until the 1970s, many children with disabilities did not have access to formal education. Most of those who attended school were educated in separate classrooms or even segregated in special schools. During the 1970s and 1980s, owing to the passage of the EHA and several state laws, a larger percentage of children with disabilities were provided with educational opportunities and support. Much of this support continued to take the form of special education classes or schools.

In 1990, the EHA was replaced by another federal law, the Individuals with Disabilities Education Act (IDEA). The IDEA reflected and extended three already existing trends. First, there was a growing insistence that communities be responsible for educating children in their neighbourhood schools rather than segregating them in separate schools or classrooms. Second, there was a related demand to educate children in the "least restrictive environment." Third, there was a move towards more individualized assessment of children to devise education plans that could accommodate each child's distinctive needs. The IDEA has undergone several revisions and expansions since it was first passed. Many countries around the world have passed laws and instituted policies implementing inclusion. International and non-governmental organizations have also mandated inclusive education. For example, the Salamanca statement of the United Nations (1994) and the UNESCO Dakar "World Declaration on Education for All" (2000) note the importance of inclusive schooling, both as a means of ensuring access to educational opportunities for all children, and as a way to combat discriminatory attitudes and to socialize rising generations to be more accepting of all kinds of diversity.

The success of these materials and various experiments on inclusive schooling in different parts of the world led UNESCO to convene, with the assistance of the government of Spain, the 1994 World Conference at Salamanca. The delegates deliberated on eliminating exclusive practices for children and young people with special needs arising from social, economic, psychological and physical conditions. At the end of the conference, the Salamanca Statement

and Framework for Action was unanimously adopted by acclamation (UNESCO, 1994). The implications for inclusive schooling are vast. Different countries, regions, local communities and professionals are at varying levels of conceptualization. While some are at the inclusive School for All stage, others are at the special school stage, and still, others are somewhere in between.

Contextual Background

Cameroon defines children with special educational needs (Acts No. 2010/003 and 2005/006) as children with significant learning difficulties due to some form of disability /disadvantage. This category includes children from areas that are remote and far away from schools; displaced, disadvantaged and poor populations; children from marginalized populations; nomads; and students in overcrowded classrooms.

The country has signed and ratified several international conventions on the protection of the rights of refugees, women, and children, persons with disabilities and learners with special educational needs. The Constitution of 1996 and the National Plan of Action for the Promotion and Protection of Human Rights in Cameroon (2015–2019) recognize the right to education (free and compulsory at the primary level, regardless of disability). This enables, among other things, economically and socially marginalized learners to prepare for the world of work and to fully participate in community life. Furthermore, the Education Framework Act No. 98/004 of 14 April 1998 states that "the State shall ensure that everyone has equal opportunities for access to education without discrimination on the grounds of sex; political, philosophical and religious views; or social, cultural, linguistic or geographical origin." A national inclusive education policy was ratified in 2021, but the implementation strategy is in the process of being finalized.

The Constitution and other decrees, laws and circulars (Circular No.283/ 07/LC/ MINESEC/MINAS and Circular No. 08/006/LC/MINESUP/MINAS) protect students with disabilities and vulnerable students. The laws aim to protect the rights of persons with disabilities and state that human and educational resources must be provided. Ct No. 83/13 stipulates that families should provide their children with disabilities with access to mainstream schools and that the State should support them in this regard. Act No. 2010/002 addresses these

learners' well-being and aims to strengthen their psychological capacities, self-esteem and social relationships. It provides penalties (fines and imprisonment) for school officials who discriminate against these learners. Act No. 90/1516 stipulates that students with disabilities must be permitted to repeat a grade twice when their disability is the reason for their failure. It also sets quotas for educational support and stresses the need to train more teachers on inclusive education strategies. Although it is often not explicitly stated, these laws and practices attempt to achieve inclusion in education.

From a policy and practices perspective, the National Plan of Action for the Promotion and Protection of Human Rights in Cameroon (2015–2019) presents some concrete achievements in inclusive education, including the drafting of a practical guide on accessibility for project managers, contracting authorities, architecture firms and decision-makers. Under Act No. 90/1516, schools must make the necessary adjustments to meet all children's needs, including those with disabilities. Act No. 2011/018 makes physical and sporting activities compulsory, including in rehabilitation institutions for persons with disabilities. There were plans to reform the student assessment system to "turn learning assessments into an educational tool and not one of exclusion" (Tchombe, 2017). There are few training canter's put in place for inclusive education teachers. However, NGOs and academic institutions offer several training courses. To this end, the Ministry of Secondary Education and the NGO Sight savers signed a partnership agreement in 2018 for teacher training on inclusive education (MINDUC, 2018). Sight savers plans to provide training on inclusive education at the National Teacher Training College in Buea. It also provides resources to other training institutes in the long term.

Conceptual background

Inclusive Education (IE) involves a process of systemic reform embodying changes and modifications in content, teaching methods, approaches, structures and strategies in education to overcome barriers with a vision serving to provide all students of the relevant age range with an equitable and participatory learning experience and environment that best corresponds to their requirements and preferences (UNICEF, 2018). Placing students with disabilities within mainstream classes without accompanying structured changes to, for example, organisation, curriculum and teaching and learning strategies do not constitute inclusion. Furthermore, integration does not automatically guarantee the transition from segregation to inclusion

(Unicef, 2018). scholars have differed on the study objective. Some researchers have incorporated all forms of student diversity in their definitions of inclusive education (Florian, Young, and Rouse 2010), and others have referred to curricula, teaching and learning in their definitions (Westwood 2018). Other researchers have defined inclusion as relating to educational leadership (Randel et al. 2018).

The concept varies from framing inclusion as relating to disabilities and special educational needs (Fasting, Hausstätter, and Turmo 2011; Vislie 2003, 2004) to framing inclusion as a normative societal principle (Van Mieghem et al. 2020). Differences in implementing inclusive education involve ideas about how education should be organised. Therefore, politicians, researchers and practitioners perceive inclusive education differently concerning what schools can and should do to help inclusive education succeed (Göransson & Nilholm 2014). Inclusive education is "a process that helps to overcome barriers limiting the presence, participation, and achievements" (UNESCO, 2017) of students in mainstream schools. Inclusive education can be defined as a "process strengthening the capacity of the education system to reach out to all learners" (UNESCO, 2017). It has to be highlighted that inclusion is not defined through the category of place but rather as a process and practice of designing schools and their activities in order to make it possible for all students to succeed (Artiles & Kozelski, 2016).

Classroom inclusion: extends beyond ensuring that children with disabilities receive the high-quality education to which they are entitled (Tchombe *et al.,* 2014). It's all about creating a better learning environment that caters to the individual needs of all students (Harris, Jones, & Crick, 2020). According to Sanger (2020), Inclusion is much more than the placement of a previously marginalised student in a regular classroom. Inclusion requires educators to use innovative and inclusive teaching practices. Inclusive educators anticipate barriers that some students could face in their classrooms and use teaching practices to overcome the obstacles faced by their students. They make learning accessible, meaningful and welcoming to all students by employing approaches such as the Universal Design for Learning (Sanger, 2020).

Curriculum: curriculum determines the quality and impact of the education system (Apsari, 2018; Tambo, 2012). As a substantial element, it includes knowledge and skills students must know in that specific field. To fully achieve these, prepare a curriculum that fits students perfectly (Muskin, 2015). As a loadstar, curriculum suggests some steps for the teacher, such

as teaching, preparing a lesson plan, and assessing (Nilholm, 2021, Tambo, 2012). Therefore, any curriculum change predicts a change in all these parameters (Retnawati et al., 2016). The curriculum not only stands for choosing content and applying some methods but also includes planned and unplanned activities involving student participation. A planned, tried and revised curriculum ensures the interaction of students and teachers in an educational environment, with physical facilities and resources of the school, targeted goals can be achieved (Olamo et al., 2019), and contribution to the development of society can be provided (Badugela, 2012).

According to Stotsky (2012), a curriculum is a plan of action to achieve desired goals and objectives. It is a set of learning activities meant to make the learner attain goals as prescribed by the educational system. The curriculum, as viewed by Alebiosu (2005), is an instrument that dictates the affairs of every educational system. It is the vehicle through which knowledge and other learning activities are disseminated. Izuagba (2009) defined curriculum as the planned and guided learning experiences and intended learning outcomes formulated through the systematic reconstruction of knowledge and experience under the auspices of the school for the learner's continuous and willful growth and personal social competence. Fafumera (2019) saw it as the whole of the educative process: the total environment in which education takes place. In other words, the entire environment in which instruction takes place; that is, the child, the teacher, the subject, the content, the method, and the physical and psychological environment.

Curriculum Implementation: Curriculum implementation refers to how teachers practice curriculum, how they teach and evaluate students (Endeley & Zame, 2021; Marques & Xavier, 2020), how they interpret curriculum (McLachlan et al., 2018). In this context, different perspectives of teachers are effective in implementation (Ogar & Opoh, 2015). For example, while some teachers implement all stages of the curriculum in detail and carefully, some teachers may stay away from differences by adhering to traditional methods (Chapman, 2019). Teaching curriculum traditionally means using routine teaching methods, offering a mechanical education and neglecting the basic learning needs of the student (Chen, 2011). Moreover, for effective curriculum implementation, a teacher should understand and interpret the curriculum well (Badugela, 2012). Also, he/she should know how to use curriculum materials (Pak, et al., 2020). The better teacher understands the curriculum, the more

effectively she/ he plans, designs lessons and implements the curriculum (McLachlan, et al., 2018). When the curriculum is not fully understood, the teacher decides whether to fully implement the curriculum or not (Cheung & Wong, 2012)

Theoretical background

Behaviourism-based Inclusive Education Practices: Theoretically, behaviourism is one of the classical theories of learning and is also recognized as the oldest (Nalliah & Idris, 2014). Behaviourism is a predominant psychological model (Harold & Corcoran, 2013), as suggested by the metaphor for 'learning as the acquisition of stimulus-response pairs' (Doolittle, 2014). Behaviourists 'believe the objective of the theory is to impart to the learner the knowledge of reality' (Hickey, 2014). Behaviourism occurs when consequences are associated with the stimulus or response that is followed by reinforcement to be maintained (Ertmer & Newby, 2013). To summarize, the fundamental principles of behaviourism that support education are: behaviour is learned, behaviour is governed by the setting in which it occurs, teaching does not occur without learning, learning equates to changing behaviour, behaviour is governed by what follows actions, and there needs to be a focus on the observable (Harold & Corcoran, 2013).

Behaviourism-based inclusive education practices include the application of behaviourism in inclusive education settings, which appears in the emphasis on student behaviour and performance in manipulating stimulus materials (Ertmer & Newby, 2013). Examples of behaviourism-based inclusive education practices are included in well-known instructional approaches such as explicit or direct instruction (AlShammari, 2019A; Steele, 2005). The method has shown positive research results with students with special needs in general education classrooms (Al-Shammari, Al-Sharoufi, & Yawkey, 2008). Practices based on explicit or direct instruction are systematic, involving a step-by-step process provided by a teacher and followed by students during instruction (Zhang et al., 2016). In addition, explicit or direct instruction-based practices that break down tasks into their most minor elements are widely used for teaching students with special educational needs in inclusive classrooms (Steele, 2005).

Cognitivism-based Inclusive Education Practices: Theoretically, cognitivism essentially focuses on the attributes of one's thinking, memory, self-reflection, and motivation to learn.

Piaget argued that "during each developmental stage, the ability to learn and the process of learning is different" (Evgeniou & Loizou, 2012). The cognitive approach focuses on the mental activities of the learner that influence responses and acknowledges the processes of mental planning, goal setting, and organizational strategies. Cognitive theories emphasize making knowledge meaningful and helping learners be more organized and able to relate new information to existing knowledge stored. In addition, cognitivist approaches emphasize thought processes and their importance in learning, including memory, thinking, reflection, abstraction, and metacognition, which are all needed in the learning process (Petersen, 2014). Therefore, cognitivist instruction "must be based on a student's existing mental structures or schema to be effective" (Ertmer & Newby, 2013).

Constructivism-based Inclusive Education Practices: Theoretically, constructivism focuses on creating cognitive tools that reflect the wisdom of the culture in which they are used and the insights and experiences of learning. Constructivism involves understanding the importance of the social dimension during learning through observation, treatment, interpretation, and adaptation of information in building a cognitive structure. Vygotsky (1962) emphasized the social role of learning because of its impact on cognitive development through learning and interaction between children and their peers, parents, and teachers. Constructivism equates to learning that involves constructing, creating, and inventing, basically for individuals to develop their knowledge and meaning. Constructivists believe that understanding the brain informs teaching (Lenjani, 2016). Akpan and Beard state, "constructivism is the best paradigm for teaching all learners, particularly students with special educational needs" (2016).

Teachers are essentially considered facilitators, providing essential information and organizing activities for students to discover their learning (Liu & Ju, 2010). Lenjani (2016) details the main guiding principles of constructivism as follows: learning is searching for meaning; meaning requires the understanding of the whole as well as the individual parts; teachers should have an understanding of the mental models that learners use to perceive their world and assumptions that they make to support their models; and the purpose of learning is that an individual constructs their meaning and does not include simply memorizing information for the correct answers or repeating merely what someone else has stated. The key to constructivism is that learning should consist of learner-centred, task-based, hands-on and

mind-on activities (Shi, 2013) while being meaningful and closely related to practical and real-life experiences (Lenjani, 2016). In addition, constructivist-based classroom activities should provide internal and external scaffolding strategies for all learners, which is essential for students with special educational needs (Shi, 2013).

Statement problem

In all countries where inclusive education has been implemented, the curriculum challenges remain daunting. This is because most curricula were developed without any consideration for learners with disability. It equally becomes difficult to change the habits of initially trained teachers within the backdrop of this curriculum. This difficulty is even more visible in a country like Cameroon, where the UN Convention on the Rights of Persons with Disabilities was ratified only in 2021, which was adopted in 2006. The argument is that inclusive education though not bad in itself is regarded as a counter to the official programs. That is why a teacher would prefer to 'cover' their program and avoid trouble with education administrators than to stick to Inclusive education and be reprimanded for not living up to the necessities of the curriculum and syllabus.

In Cameroon there are ministerial structures and associations that deal with the issue of disability. There is a desire to change things but not yet enough involvement in the subject, and not enough reception structures. It's more about "integration" than inclusion. The educational system accepts and welcome young people with disabilities into the classes, but there is no pedagogy, nor even suitable equipment to create an enabling learning environment for learners with diverse needs (Maingari, nd). Also, the curriculum in Cameroon is examination-oriented (Tambo 2012), and success in examinations, especially official examinations, is equivalent to good teaching. Inclusive education proposes the contrary, and teachers find it difficult to swallow. It is essential to know the needs of all children and reorient the curriculum to meet them. As Hooker (2007) highlighted, teachers' training and assessment constitute one of the most significant challenges for inclusive education.

Also, Available statistics in developing countries and Cameroon, in particular, reveal significant gaps in teacher' knowledge of special needs and inclusive education (Tchombe *et*

al., 2014). This has negatively impacted existing laws on inclusive education in Cameroon because attention is paid more to integrate persons with disabilities than inclusive education practices. Typical among these laws are the 1983 Law on persons living with disability, the 1990 text of application of the 1983 Law and the most recent and widely cited 2010 Law on persons living with a disability. Nothing is mentioned in policy documents regarding diversity in the classroom and the welfare of disadvantaged children with special educational needs. The focus is more on specificity rather than inclusivity, with no legislation addressing psychosocial needs and supports. Despite these good intentions for the education of persons with special needs, Law No. 98/004 of 14th April 1998 laid down guidelines for education in Cameroon, granting equal opportunities without discrimination of gender, political, philosophical and religious opinion, socio-cultural, linguistic or geographical origin. The shortcoming of this law is that no mention is made of persons with disabilities. Furthermore, at no point has any of the decrees and laws mentioned the training of teachers nor addressed curriculum reform to respond to the needs of inclusion. As such, the research aims at investigating the effect of curriculum implementation on inclusive eduction practices in secondary schools.

Purpose of the study

This study aims to investigate the influence of curriculum implementation on inclusive education practices in public secondary schools in Mfoundi Division.

Objectives of the study

- Examine the effect of teachers pre-service training on inclusive education practices
- Investigate the effect of teaching methods on inclusive education practices
- Explore the effect of teaching material on inclusive education practices
- Assess the effect of the evaluation method on inclusive education practices

Research Questions

- How does teachers' pre-service training affect inclusive education practices?
- What is the effect of teaching materials on inclusive education practices?
- What is the outcome of teaching methods on inclusive education practices?
- What is the influence of evaluation methods on inclusive education practices?

Research Hypotheses

- H_{a1}: teaching materials have a statistically significant effect on inclusive education practices
- H_{o1}: teaching materials have no statistically significant effect on inclusive education practices
- H_{a2}: teaching methods have a statistically significant outcome on inclusive education practices
- H_{o2}: teaching methods have no statistically significant outcome on inclusive education practices
- H_{a3}: evaluation methods have a statistically significant influence on inclusive education practices
- H_{o3}: evaluation methods have no statistically significant influence on inclusive education practices

Significance of the study

To the ministry of secondary education

The researcher chose to undertake this study because there is a lack of research on general secondary education on teachers' inclusive education requirements in secondary school classrooms (chwab, 2021). Given the absence of research, educators and administrators do not understand the relationship between inclusion requirements and secondary school curriculum implementation and achievement levels. Thus, this study may prove beneficial for administrators trying to implement inclusion requirements in their schools and for future researchers interested in inclusion and curriculum implementation.

For policy makers

The significance of this study is the creation of awareness of inclusive education in secondary schools and understanding of both central and decentralized services in Basic Education of knowledge of the policies and legislations on inclusive education in Cameroon for practical implementation in all aspects of educational practices. Discussion on policy gaps should provoke a reaction for reviewing existing policies to make them more functional and inform strategies for inclusive education to be implemented by Sight savers and partners.

Scope of the study

Thematic: The primary concern of this study is on inclusive education practice and curriculum implementation. This is delimited to four aspects of curriculum implementation: the teacher's training/ professional development, the teaching material, the teaching methods/strategies, and the evaluation /assessment methods in secondary schools. The main actors are the teachers in public secondary schools.

Spacial: This study is delimited to selected public secondary schools in Mfoundi Division.

Temporal: this study was carried out from October 2022 to June 2023.

Operational definition of terms

Teacher's training: Teacher training has come to be regarded as consisting of three phases, including initial teacher education (pre-service teacher education), induction training, and in-service education (Degener, 2016).

Teaching strategies/methods: The term teaching method refers to the general principles, pedagogy, and management strategies used for classroom instruction.

Teaching material: The term material in teaching and learning refers to everything used to teach (Tomlinson, 2014) and to facilitate teachers and learners in learning (Richards and Schmidt, 2002). It can be in the form of visual, auditory, or kinesthetic. It may be presented in print (a textbook, a workbook, a photocopied handout, and so forth), in audio or video form, on CD-ROMS, on the internet, or through live performance or display (Tomlinson, 2014).

Evaluation/Assessment methods: In education, evaluation means measuring or observing the process to judge or determine its value by comparing it to others or a standard (Weir & Roberts, 1994). The emphasis of evaluation is based on broad personality change and the primary objectives of the educational program (Woodcock & Hardy, 2017). Evaluation can and should be used as an ongoing management and learning tool to improve learning.

Inclusive practices: A teaching approach where schools recognize the diversity of learners and implement instructional strategies that increase the participation and progress of all students in

the general education program (Davey Young, 2022). Inclusive education practices focuse on the learners learning together and developing their potentials.

Inclusion: According to Sanger (2020), Inclusion is much more than the placement of a previously marginalised student in a regular classroom. Inclusion requires educators to use innovative and inclusive teaching practices. Inclusive educators anticipate barriers that some students could face in their classrooms and use teaching practices to overcome the obstacles faced by their students.

Special needs: According Squires (2012), special needs refers to highly diverse population of children with a wide range of physical, cognitive and socioemotional disabilities or difficulties as well as strengths and resources causing them to require varying degrees of special education support and assistance

CHAPTER TWO
LITERATURE REVIEW

This study aims to examine the challenges and opportunities of inclusive education practices and curriculum implementation in public secondary schools in the Mfoundi Division. This chapter reviews concepts, literature and theories related to the study.

Conceptual Framework

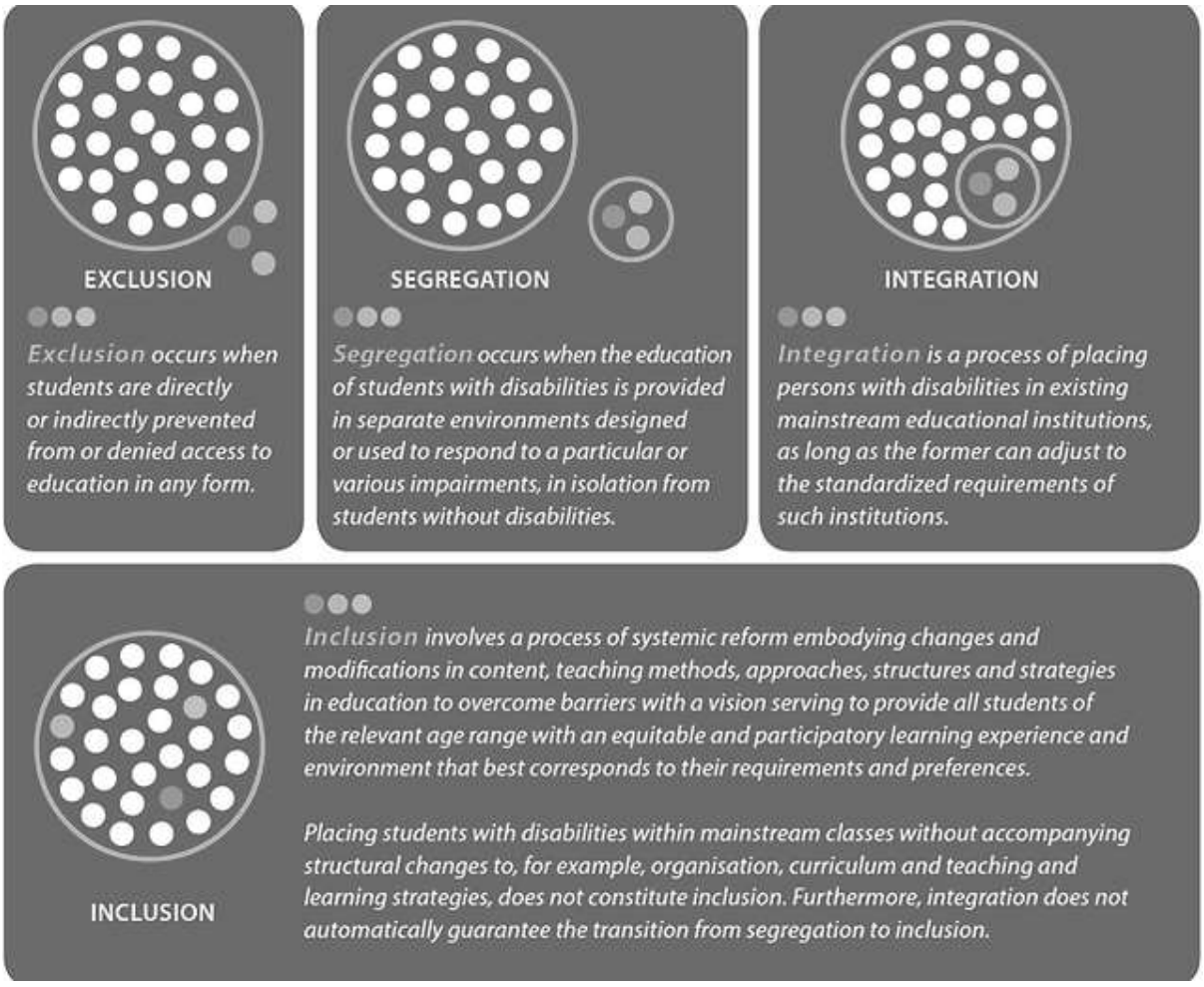
Inclusive education has been a key concept in education theory discourse, policy and practice throughout the last decades. Indeed, inclusion in education is not a recent concept. The first "World Conference on Education for All" held in 1990 by the United Nations was a response to preoccupations regarding inequalities in education, paving the way for other declarations and conventions (European Agency for Development in Special Needs Education, 2011). UNESCO's Salamanca Declaration of 1994 emphasised the need to reform education systems, which can only be feasible if mainstream schools can include and educate all children in their communities. This Declaration specifically targeted students with special education needs (or disabilities), and it is only recently that inclusive education has begun to be discussed as necessary to reach all learners by responding to growing diversity within schools and wider society (Ainscow, 2019). Indeed, diversity is a broad term and includes many groups for which data are unavailable or difficult to compare across and within countries.

Recent OECD work (2020) has found that OECD countries have become considerably more diverse in a relatively short timeframe. They see inclusive education as concerned with the education of all children and view children with disabilities and/or special educational needs as one amongst many groups that historically were excluded or underserved. Inclusive education aims to respond to all students' needs, going beyond school attendance and achievement while improving all students' well-being and participation (Cerna et al., 2021). Today, inclusive education is generally viewed as "a matter of adopting a socio-ecological approach regarding the interactions between students' capabilities and environmental demands, stressing that educational systems must adapt to and reach all students – and not vice versa" (Amor et al., 2018).

Categories of educational models

The United Nations (UN Committee on the Rights of Persons with Disabilities (CRPD, 2016) clarified their interpretation of inclusive education practices. These definitions are tailored to students with special education needs (or disabilities) but can be applied to a broader context of diverse students. Some researchers have also defined these stages of education as historical progression (Cerna et al., 2021).

Figure 1: The four types of educational model



Source: (UNESCO, 2012, p4)

The United Nations Committee on the Rights of Persons with disabilities. General comment No. 4, article 24-the right of inclusion (CRPD/C/GC/4).

Exclusion occurs when students are directly or indirectly prevented from or denied access to education in any form. This may be when students are not allowed to register or attend school

or conditions are placed on their attendance. Exclusion in education does not only mean "out-of-school children"; it has many expressions (International Bureau of Education, 2016; UNESCO, 2012). For instance, exclusion can be from entry into a school or an educational programme due to inability to pay the fees or being outside the eligibility criteria. It could also mean exclusion from regular and continuing participation in school or an educational programme, as in the case of a school or programme being too far to attend regularly or the inability to spare time for attending school due to other life demands.

Segregation occurs when diverse students are educated in separate environments (classes or schools). This can happen when students with a learning disability are forced to attend a school exclusively for students with disabilities, but also when schools teach either females or males only (i.e. same-sex or single-sex education) (UNICEF, 2014). Integration is achieved by placing students with diverse needs in mainstream education settings with some adaptations and resources on the condition that they fit into pre-existing structures, attitudes and an unaltered environment (UNESCO, 2017). For example, integration can consist in placing a student with a physical impairment or a learning disability in a mainstream class, but without any individualised support and with a teacher who is unwilling or unable to meet the child's learning, social or disability support needs. Furthermore, integration does not automatically guarantee the transition from segregation to inclusion. More recently, integration and inclusion have been compared and sometimes confused, whereas the two concepts present significant differences.

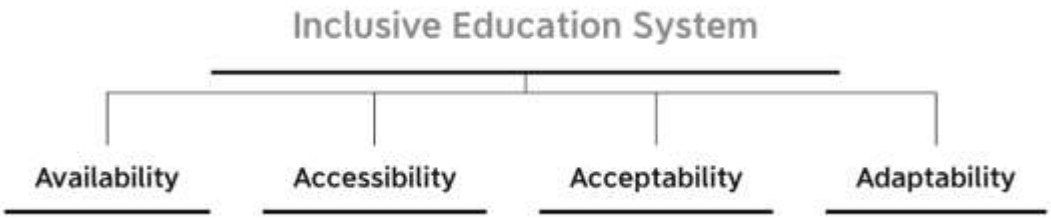
Inclusion is a process that helps to overcome barriers limiting the presence, participation and achievement of all learners. It is about changing the system to fit the student, not changing the student to fit the system, because the 'problem' of exclusion is firmly within the system, not the person or their characteristics (Amor et al., 2018). Inclusion is strictly related to that of equity in education. Most of the policy discourse on the topic generally discusses it in terms of "equity and inclusion in education". For instance, UNESCO's Institute of Statistics has established the International Observatory on Equity and Inclusion in Education to "foster and develop the methodologies, guidelines and research needed to build a global repository of data and standards to measure equity in education" (UNESCO Institute for Statistics, 2019).

Equity considers "the social justice ramifications of education in relation to the fairness, justness and impartiality of its distribution at all levels of educational sub-sectors" (UNESCO Institute of Statistics, 2018). Equity is at the core of the Sustainable Development Goals (SDGs), with Target 4.5 specifically aiming to "eliminate gender disparities 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". In other words, differences in outcomes must not be the result of the circumstances into which individuals were born (UNESCO Institute of Statistics, 2018).

Inclusive education system

The Committee on Economic, Social and Cultural Rights sets out the interrelated and essential features of the right to education, known as the '4As' (CRPD, 2013). Inclusive education is a concept that brings these essential features together to remove barriers and promote the enjoyment of the right to education for all, especially of those groups at risk of marginalization, including people with disabilities.

Figure 2: Inclusive Education System



Source (UNCRPD Article 13 {2013})

Accessibility: General Comment 13 of the Committee on Economic, Social and Cultural Rights provides that educational institutions and programmes must be accessible to everyone, without discrimination Convention on the Rights of Persons with Disabilities (CRPD, 2013).

Article 9(1)(a) of the Convention on the Rights of Persons with Disabilities (CRPD), provides that states must take appropriate steps to make schools accessible to persons with disabilities. The CRPD Committee's General Comment 2 on accessibility makes clear, however, that it is not just the school building that must be accessible but the entire education system, including information and communication, assistive systems, curriculum, education materials, teaching

methods, assessment and language and support services. The whole environment must be designed in a way that fosters the inclusion of students with disabilities and guarantees their equality throughout their education.

Article 24(2)(b), CRPD also requires states to ensure that persons with disabilities can access inclusive, quality, and free primary education and secondary education on an equal basis with others. Students must be able to access education within the community *in* which they live, which means the educational environment must be reachable for persons with disabilities, including through safe transport.

The Committee asserts that states should prevent the building of future education facilities that are inaccessible and should establish a monitoring mechanism and time frame for already existing education environments to be made accessible. The Committee calls for states to commit to the introduction of Universal Design. Universal Design is (UD) defined in Article 2, CRPD and 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. It does not exclude assistive devices for particular groups where this is needed.

There continues to be a widespread global lack of textbooks and learning materials in accessible formats and languages, including sign languages. The Committee highlights that to meet their obligations to provide access to inclusive education. States must invest in developing such resources and ratify and implement the Marrakesh Treaty (2013) to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled.

The CRPD Committee affirms that accessibility also requires that education at all levels be affordable for students with disabilities. Free primary education for all particularly implies that accessibility measures should be free of charge. In their 2013 thematic report, the Human Rights Committee cite the Finnish Basic Education Act as a good example of this because it provides that a pupil with a disability has the right to free interpretation and assistance services in order to participate in education.

Acceptability: all the forms and substance of education must be acceptable to all students (CRPD, 2013). States, therefore, have an obligation to ensure all education-related facilities, goods, and services are designed and implemented in a way that takes into account and respects the needs, cultures, views, and languages of persons with disabilities. Convention on the Rights of Persons with Disabilities (UNESCO, 2015).

Education must also be of acceptable quality for all students, and states must adopt positive measures to ensure this is the case for students with disabilities. Inclusive education must, therefore, promote respect for all persons by developing learning environments, cultures, and curricula that reflect the value of diversity. Textbooks play an important part in shaping values and should, therefore, include positive representations of persons with disabilities rather than harmful stereotypes (UNESCO, 2015).

Availability: the states must ensure that there are enough good quality functioning educational institutions with places available for learners with disabilities at all levels (UNESCO, 2015).

Adaptability means that education must be flexible and adapt to the changing needs of societies and the diverse needs of students in different social and cultural settings. Curricula must be designed and applied to adapt to the requirements of every student, and standardised tests must be replaced by flexible and varied forms of assessments, recognising different routes to learning and the progress of individual students towards broad goals (UNESCO, 2015).

Article 24(2)(d) of the Convention on the Rights of Persons with Disabilities (CRPD) requires states to ensure that persons with disabilities receive the support they need for their effective education provided within the general education system. This support can be provided through the general availability of education services and facilities, such as trained school counsellors and other professionals. Article 24(2)(e), CRPD further requires that individualised support measures are provided to maximise academic and social development, in line with the aim of full inclusion of persons with disabilities. In CRPD General Comment 4, the Committee emphasises the need for individualised education plans to identify any reasonable accommodations and specific support required by individual students. The nature of the provision must be determined in collaboration with the student and, where appropriate, with parents or caregivers.

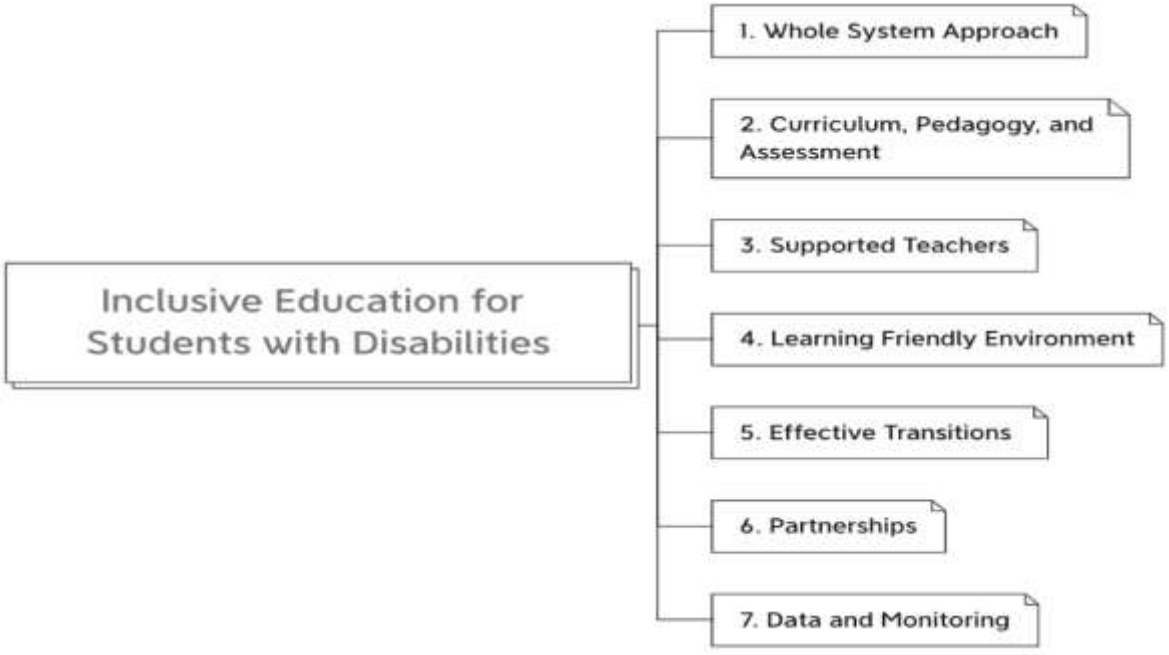
Adapted teaching methods, materials and modes of communication are particularly important for enabling students with disabilities to learn life and social development skills in accordance with Article 24(3), CRPD. However, in General Comment 4, the Committee observes that many states are still failing to make appropriate provisions for persons with disabilities to gain these skills.

The Committee makes a series of specific recommendations for provision and investment in order for states to meet this obligation, including providing blind and partially sighted students with opportunities to learn Braille and alternative modes, means and formats of communication and providing deaf and hard of hearing students with the opportunity to learn sign language.

Domains of inclusive education in practice

Students with special needs can be included in education through several entry points. The figure below shows the interrelated domains that form a system of inclusive education. A comprehensive review of the domains and the metrics to measure a country's position and set goals for growth can be found in UNICEF's (2020) Education for Every Ability.

Figure 3: Domains of Inclusive Education in Practice



Source: UNICEF (2020, p4-Education for every ability).

Equitable education involves varying degrees of factors that allow students from different learning and cognitive backgrounds to learn together. Equitable does not mean equal or the same learning methods. Therefore, some level of individualisation of teaching may be needed to teach all students effectively. Support can be used rarely, sometimes, or always for long-term intervention.

Whole-Systems Approach: Article 4 of the UNCRPD calls on states to adopt a whole-systems approach to inclusive education, which refers to the responsibility and ownership of their role across stakeholders (UNICEF, 2020). The approach uses laws and policies that explicitly state that children with disabilities should receive a quality education. The approach also involves inclusive leadership and culture at all levels of the education system and a national plan that guides the implementation of goals and strategies to fully include students with disabilities. Resources should be properly allocated, and stakeholders can work together to shift attitudes, policies, and practices by tackling negative attitudes towards disability through institutional capacity-building and awareness programmes.

Curriculum, Pedagogy, and Assessment: Good progress has been made in the physical environment and in information communication and technology (ICT), such as closed captioning on television shows or accessibility of public documents. Less effort, however, has gone into making education curriculums accessible to all (UNESCAP, 2018). Flexible curriculums, teaching methods adapted to the learner's style and needs, and increased use of formative assessment based on competencies rather than benchmark achievement can open the curriculum to students with disabilities with a fundamental paradigm shift: curriculum, pedagogy, and assessment should focus on a student's capacity and aspirations and not just on content. Assistive and adaptive technology, along with reasonable accommodation, can help students with disabilities gain access to curricular competencies (UNICEF, 2020).

Supported Teachers: Teachers are at the heart of classroom learning and are crucial in implementing inclusive education. Their competency, motivation, and attitudes towards students with disabilities significantly affect learning outcomes and a sense of belonging in schools. Whilst they can make a positive difference in the lives of students with disabilities. Teacher training programmes do not always provide adequate knowledge about disabilities—

also, ongoing professional development opportunities to use evidence-based methods in the classroom. Even though the UNCRPD requires governments to train pre-service and in-service teachers and other support staff in inclusive values and competencies, such training can help make teachers agents of change, as government policies can be vague at times (CAST, 2018).

Learning-friendly Environment: A safe and supportive learning environment can positively affect learning outcomes: the brain can receive and process information more productively than when in a state of extended stress. The government's role in ensuring a friendly environment is understated. The UNCRPD mandates governments to create inclusive learning environments for students with disabilities. A school culture of inclusion can help open conversations, interactions, and collaborative problem-solving (UNICEF, 2020).

Effective Transitions: Lifelong learning is fostered through effective transitions between school environments, from preschool to primary to secondary, from secondary to vocational and tertiary education, and eventually to the job market. In creating a plan for inclusion, educators must consider students' views, goals, and interests; their protection and safety; and their right to education and health (UNICEF, 2020).

Partnerships: Education in school systems provides foundational skills to connect with other parts of society, such as recreation centres, community libraries, and local transit systems, amongst others. Wherever a student with a disability is placed, in or out of school, is a learning environment. A multi-sectoral and multi-ministerial commitment and a system that holds governments accountable can ensure that legislation and policies are inclusive. Partnerships can refer to home support through parent involvement in a student's learning plan and implementation (UNICEF, 2020).

Data and Monitoring: Reliable data on the number, type, and severity of students' disabilities can help governments, schools, and teachers prepare for successful inclusion. A medical model of collecting data may be helpful when congenital or developmental delays are detected. However, a holistic method of collecting data on disability type, limitations, and, importantly, strengths can help guide stakeholders positively and constructively in making curriculums, pedagogy, and assessments more inclusive whilst shifting the view of students with disabilities

from ‘other’ to ‘belonging’. Monitoring and evaluation should be done regularly to ensure accountability of programming and government commitments. One of the key components of data and monitoring includes asking the right question to gather data that captures metrics for reporting. Box 1 highlights the development of the Washington Group on Disability Statistics, which aims to address this issue (UNICEF, 2020).

Inclusive practice through teaching and learning

Inclusive practice means learning and teaching activities responsive to student diversity (Ainscow, 2020). That is, learning experiences are designed with students' individual strengths and needs in mind, and consideration is given to the ways in which all students can be enabled to actively and meaningfully participate in their learning and be appropriately challenged (Ainscow, 2020; Booth & Ainscow, 2011). A strengths-based approach should be considered throughout this planning and implementation, meaning there should be a strong focus on students' capabilities rather than ‘deficits’ (Florian & Spratt, 2013). Differences and diversity should be embraced and responded to positively (Finkelstein et al., 2021). Barriers to students' learning and participation are identified and addressed (Dally et al., 2019), and the lessons learned from this are utilised to support the learning and participation of others (Booth & Ainscow, 2002; 2011).

Assessment of student learning is designed to be receptive to and support all student’s achievement, and collaborative and individual achievements are celebrated (Booth & Ainscow, 2002; 2011). Where teaching assistants (i.e., teachers' aides or school learning support officers (SLSOs)) are present, they support all students in their learning and participation, not just students considered to have ‘special educational needs, and through designing learning experiences to be responsive to all learners, the need for individual student support is reduced (Ainscow, 2020; Booth & Ainscow, 2002; 2011). When effectively implemented, inclusive education can benefit all students' learning and achievement, positively impacting their self-esteem and their emotional and social development (Antoninis et al., 2020).

Inclusive practice can be supported by approaches such as the Universal Design for Learning (UDL; Center for Applied Special Technology (CAST), 2018; Finkelstein et al., 2021) and

differentiated instruction. A Universal Design for Learning is considered a proactive approach where responsiveness to student diversity is planned for from the outset regardless of students' specific needs, whereas differentiated instruction is considered a reactive approach where learning experiences are varied or modified to cater to students' specific needs (Lidner & Schwab, 2020). The UDL approach (CAST, 2018) involves providing multiple means for students to access and perceive information (e.g., displaying information in accessible and alternative modes), to engage in learning (e.g., providing an opportunity for student choice within learning activities), and for communicating their learning (e.g., enabling various modes of expression). Differentiated instruction can involve modifying the learning environment, instruction, content, the processes through which students engage and learn this content, the product through which they communicate their learning, assessment, and the timeframes (Lidner & Schwab, 2020). Student groupings can also be differentiated to support the learning of all students (Lidner & Schwab, 2020). When used effectively, UDL and differentiated instruction can support fair and equitable educational experiences for all students.

Inclusion is much more than the placement of a previously marginalised student in a regular classroom. Inclusion requires educators to use innovative and inclusive teaching practices. They make learning accessible, meaningful and welcoming to all students by employing approaches such as the Universal Design for Learning (Sanger, 2020). Inclusive educators anticipate barriers that some students could face in their classrooms and use teaching practices to overcome barriers faced by their students (Sanger, 2020).

Teachers' training and inclusive education practices on curriculum implementation

The Teaching Quality Standard comprises six professional competencies that form the interrelated knowledge, skills and attributes teachers will draw on in a particular context to support optimum student learning. The competencies, demonstrating a Professional Body of Knowledge and Establishing an Inclusive Learning Environment, provide direction to teachers regarding student assessment in an inclusive classroom (Alberta Education 2017). According to several researchers (Bondarenko, 2018; Martyntchuk, 2018; Kasyanenko, 2018), one of the dominant prerequisites for the development of inclusive education is the professional, up-to-date training directed to enhance the competence of the teachers who would be capable of and ready to work with children with special needs.

Developing an inclusive education system requires adjustments and changes to the organisation of training of future educators themselves (Darling-Hammond, 2017). An impressive number of scientific works are devoted to studying teacher professional training issues, such as Voloshyna (2017); Chupakhina (2019) and others have studied the problems of pedagogical education. Future teachers need help creating conditions that would stimulate them to professional development (Demchenko, 2021; Komogorova, 2021; Sheremet, 2019). Berehova (2019), Voloshyna (2017) and Dmytrenko (2017) express their strongest belief that the teacher plays a pivotal role in the successful implementation of inclusive education principles and their application in pedagogical practice.

In the inclusive education framework, it is necessary to comply with special requirements for professional and personal training of teachers, which includes not only essential components (subject, methodological and other knowledge, skills and abilities) but also a particular component of professional qualification. This being said, the specific training component should be aimed at the formation of knowledge about the essence of inclusive education in a student, as well as the ability to implement different ways of pedagogical interaction between all subjects of the educational environment" (Chupakhina, 2019).

Dmytrenko (2017) believes that teacher training for work in an inclusive learning environment should, among other things, include psychological training. This training facilitates the formation of motivational readiness: the moral principles of the teacher on inclusion and the ability to accept students with disabilities and others emotionally. The teacher stands in the limelight of the entire inclusive learning space. To ensure effective work with children with special needs, the teacher must demonstrate certain personal qualities: mercy, empathy, tolerance, tact, tolerance, psychological stability, and optimism. In the context of the axiological approach, the pedagogical values remain the stronghold of the training process (Komogorova, 2021 & Sheremet, 2019). The values eventually determine the educational content since pedagogical axiology is aimed at changing the nature of the relationship between teacher and student. As a result, what really matters is a complex of knowledge, abilities, skills, and a set of vital values (Mattson, 2009; Hansen, 2009). Within the framework of the competency approach logic, many scientists (Berehova (2019), Voloshyna (2017), Dmytrenko (2017) agree that the teacher's training is the path and the outcome of their competence

development, which determines the ability of a specialist to address various professional problems arising in professional activities, based on the knowledge, professional and life experience they have accumulated, as well as values and inclinations.

A teacher that is working in the inclusive education environment has a pivotal role because they are expected to be able to carry out the educational process at a high level, building a complex of necessary knowledge, skills and abilities in a child with developmental problems, but also to demonstrate the capacity to help the children in social adaptation, in establishing contacts with the surrounding world. The professional culture of the teacher is of great importance as their psychological and pedagogical willingness to work with all children without exception (Treviranus, 2010). The essence of the formation of future teacher professional training allowed us to formulate the prerequisites aimed at implementing the training of teachers in inclusive classrooms (Berehova, 2019)

According to Voyevutko (2017), Raptis (2020), and Spanaki (2020), teacher development has to be the heart of initiatives for developing inclusive practices in schools. This requires building competencies of all "regular teachers" to deal with a diverse population of students and to learn pedagogical strategies that facilitate the learning of all students in the classroom. A quality, inclusive education system requires a more acknowledged, highly skilled teaching force. There is a need to strengthen teachers' knowledge, skill, and attitudes to create an inclusive ethos and learning environments in schools. Teacher education programmes should equip teachers with the following:

- Fundamental competencies provide a knowledge base to teachers for understanding philosophical assumptions underpinning inclusive education policies and practices, understanding the nature and barrier to learning, and learning style, among others.
- Skills to examine and reassure attitudes towards other cultures.
- Skills to develop empathy and treat all students as individuals.
- Skills to promote the success of all students and strategies to deal appropriately with prejudice at school.
- Skills to work in multicultural settings, including understanding the value of diversity and respect for differences.

- Practical competencies require teachers to develop the skills to create a learning environment, undertake an analysis of barriers to learning, develop teaching strategies, and develop resources to support learning.
- Reflective competencies help teachers to reflect how language, disability, race, gender, geographical location, and differences impact learning and appropriate adaptation to teaching strategies to maximize the participation of all learners
- Skills to collaborate closely with colleagues, parents and the wider community.
- Skills necessary to help learners acquire the competencies listed in the European Reference Framework of key competencies (communication, mathematical, competencies in science and technology, digital competence, learning to learn, social and civic competencies, sense of initiative and entrepreneurship and competencies in cultural awareness and expression) (European Committee, 2007).
- Skills to monitor the effectiveness of classroom interventions. Teacher education is therefore seen as a core element for building the capacities of education systems to move toward a more inclusive approach.

Teaching Material and inclusive education practices on curriculum implementation

Educational materials are the tools that enrich the learning process and make learning concrete. Educational materials have positive effects on making education effective. Educational materials are elements that teachers can not overlook, such as: facilitating the process of learning and providing permanence to what is learned (øúman, 2015). The materials that the classroom teachers use differ. Analysis indicated them to be: student books, worksheets, models, posters, etc. In recent years there have been some positive improvements regarding educational materials. However, these improvements are not enough for the students who need exceptional support and the teachers working with them. Inclusive education is used with the same meaning as placing the students who need special education with other students of the same age in the same classes (Sucuolu, 2016).

Including the students with disabilities and having the knowledge of how to treat them are important characteristics of an effective school, and in this regard, Ainscow (2018) indicated that an effective school has effective leadership and staff who are able to deal with all students and their needs, is optimistic that all the students can progress and develop their abilities toward

successful achievement, has a willingness to support its staff by meeting their needs taking into account the curriculum, and ensuring that the curriculum meets all the students needs by effectively reviewing its programmes (teachers, curriculum, students' progress), frequently making sure there is progress in terms of the effective teacher. Successful teachers challenge the students' abilities by setting good quality tasks, providing students with opportunities to choose their tasks, varying learning strategies and providing facilities that contribute to student learning (Ainscow, 2016).

The use of materials has been the basis for the equality of opportunities in the process of education. In other words, it provides the opportunity to present the educational environment, which is improved and enriched by the help of every kind of educational technology to all people in every part of the country and the world. As a result, everybody will have the chance to have a high-quality education. With the help of educational technology, equality of opportunity problems in our country can be prevented (Øúman, 2015). Educational materials are the tools that enrich the learning process and make learning concrete. The fact research indicates that educational materials have positive effects on making education effective. Educational materials are elements that teachers can not overlook, such as: facilitating the process of learning and providing permanence to what is learned. The materials that the classroom teachers use differ. Analysis indicated them to be: student books, worksheets, models, posters, etc. In recent years there have been some positive improvements regarding the use of educational materials as a result of the ministry of education and publication companies' support in our country. However, these improvements are not enough for the students who need special support and the teachers working with them. Inclusive education is used with the same meaning as placing the students who need special education with other students of the same age in the same classes (Sucuolu, 2017).

The rights of students with special needs to be educated in an inclusive classroom rather than educating them in an isolated environment have been a main concern raising issues and interest for educators, policy-makers and researchers in recent times and eventually became the basic issue in terms of teaching students with special needs. Effective school and teachers' characteristics influence students' achievements and outcomes positively in inclusive classrooms, school characteristics such as qualified leadership, learning environment, high

expectation, positive reinforcement, monitoring student progress and parent-school cooperation. Teacher characteristics such as efficient use of time; good relationships with students; providing positive feedback; having a high student success rate; and, in general, providing support for students with and without disabilities (Sakarneh, 2014). The resources of teachers who are employed for inclusive education are usually inadequate in terms of materials development. For this reason, some classroom teachers prefer to use the materials they have developed themselves. During inclusive education, teachers come across some difficulties and have to produce solutions to overcome them (Sucuolu, 2017).

Using materials in education eases the perception and learning of students at all levels. This is especially true for students who have difficulty in learning. The teacher should use the appropriate materials to make the learning process concrete, to practice and revise, and to increase the student's participation in the learning process. This situation helps inclusive learners to have observable and concrete learning during the process. The most important part of the material in inclusive education is the selection and preparation of the material. In this process, the teachers have to create solutions themselves. Factors such as the characteristics of the inclusive learner and the easiness or difficulty level of preparing a material are influential. It is important to analyse and evaluate the solutions that the teachers create themselves regarding materials preparation on implementation and sharing with the other partners in the field.

Teaching method and inclusive education practice on curriculum implementation

Teaching does not happen haphazardly; teachers apply specific procedures to teach. The strategies discussed here are those found dominant in the literature about inclusion. For instance, various teaching strategies used to support learners in the teaching and learning process are (Lindner and Schwab, 2020; Schwab, 2021):

- Collaborative.
- Co- or team-teaching.
- Motivation.
- Discipline.
- The differentiated approach to teaching.
- Reciprocal teaching.

- Scaffolding instruction.
- The use of technology to aid inclusion.
- Multiple intelligence, multi-level instruction.
- Multi-sensory instruction.

Teaching is a process by which teachers impart knowledge to learners or facilitate the learning process of the learners. Tomlinson (2014) believes that traditional teaching styles could be used to enhance inclusion but points out that it requires a measure of flexibility and awareness to switch approaches in such a manner that the needs of all learners are responded to. In the past, teaching was regarded as a one-way interaction process between the teacher and the learner. By contrast, modern approaches to teaching emphasize two-way interaction in the sense that learners are not the passive recipients of knowledge but also have a contribution to make to their learning. Muijs and Honka-silta et al., (2019) refer to the former approach as "direct instruction" and the latter as "interactive" teaching.

Behavioural Teaching: it is a teaching approach where the intention is to change the behaviour of the learners. Learning is regarded as a change of behaviour (Bekele & Melesse, 2010). Behavioural teaching is an approach that occurs within the three premises, namely setting conditions, antecedence and consequences. It is a method that emphasizes the objective curriculum and is often criticized for not being suitable for all curriculum areas (Venetz et al., 2015). It denies the learners the right to choose the learning material. It regards teachers as more knowledgeable than the learners, a contrast to the notion of "self-advocacy", which is critical in ensuring those learners are all included in the classroom. It does little to encourage interaction between the teacher and the learner.

To include all learners in the lesson, the behavioural teaching approach could be used in conjunction with interactive teaching (Ainscow, 2018). It could be helpful if teachers could use behavioural teaching activities such as prompting, reinforcement and task analysis. Motivation is one of the phenomena teachers could employ to manipulate the behaviour of learners. Rewarding learners could ensure that all learners are engaged in a lesson. Learners could be encouraged to take their learning seriously and be in control of it. They should be given a chance to demonstrate how they have learned. The notion of "trial and error" involves

trying things for themselves and is critical in encouraging learners to lead their learning (Messiou, 2018).

Learners should be afforded opportunities to be involved in the selection of the learning material, as this could have positive effects on learner interest and motivation. Finding the baseline as a process of determining prior knowledge is crucial to the behavioural teaching approach because it already confirms how the envisaged behaviour would suit the learner's needs. Breaking the behaviour up into small, manageable units could be fruitful. This task analysis process is composed of activities, such as prompting, to assist the learners in performing complex tasks (Bal et al., 2018).

Interactive Teaching: its analysis as an essential aspect of curriculum delivery (Paju et al., 2018). Such an interaction analysis occurs within the framework of an interactive teaching approach. For interaction to be effective in the class, teachers must acknowledge questioning and elicit a response from the learner (McMurray and Thompson, 2016; Petersen, 2016; Ainscow and Messiou, 2018). Teachers have to ensure that learners are asked questions that are relevant to what they ought to learn, that the learning material is at the learners' cognitive level of thinking, and that the learners are given a chance to answer the questions from their perspectives without teachers being prescriptive about answers.

Interactive teaching fosters inclusion because the learners are catered for in the curriculum rather than being compelled to adjust to the curriculum (Cenci et al., 2020; Martinez-Alvarez et al., 2018). Intensive interaction focuses on the participation of the learner and places less emphasis on the outcome. Interactive teaching is essentially teaching that is not tightly structured but creates environments that allow the learners to learn through spontaneous language, play and free exploration of their domains. The advantage of interactive teaching is that it is a natural way of learning without a rigid structure (Ainscow and Messiou, 2018).

Teachers use different teaching methods to interact with learners. The choice of a particular teaching approach or method is guided by the nature of the learning material, the type of learners and the ability of the teacher to execute it.

Every teacher adopts a particular teaching method to teach specific subject material to certain learners. Promoting inclusion in the classroom may require the teacher to analyze which could

best encourage inclusion. Ainscow and Sebba (2018) argue that using different teaching styles could enhance inclusion.

Collaborative Teaching: is seen as an essential prerequisite for inclusion to take place (Hancock & Miller, 2018). The cornerstone of collaboration is communication, which requires a voluntary, mutual and creative decision-making process on the part of the teacher to occur effectively. Different forms of collaboration are, among other things, station teaching, parallel teaching, alternate teaching and team teaching (Brady & Tsay, 2010). Collaborative teaching is teaching by two or more teachers delivering instruction to diverse learners. It may also occur between the teacher and the support staff (UNESCO, 2016). Collaborative teaching depends on factors such as the willingness of the teachers to participate, the availability of resources, effective monitoring systems, and an individualized education plan (IEP) for each learner. Teachers should be willing to establish professional communities of learning with shared goals. They should be prepared to plan and share the responsibility of teaching (Walsh, 2012). The spirit of trust and mutual relationships may strengthen the ability of teachers to collaborate (Haug, 2017; Haustätter, 2014). Teachers must have a shared vision and mission to achieve the goals they have set for themselves (Honkasilta et al., 2019)

The advantage of collaboration is that all teachers' expertise, knowledge, experiences and abilities can be effectively utilized. It reduces the individual teacher's workload since the team shares the work. It also positively affects the teacher's esteem and confidence (Ainscow & Sandill, 2010; Magnusson,2019; Miles & Singal, 2009). More experienced teachers assist the less experienced ones, improving the chances of good classroom teaching and many teachers use different collaboration methods. The following are examples of collaboration (Chong, 2018):

- Supportive teaching: One teacher teaches while the other assists the learners.
- Parallel teaching: Teachers rotate to teach learning groups, sometimes using different styles.
- Complementary teaching: The teacher supports their colleague by only supplying notes or learning resources, for example.
- Team teaching: Two teachers share the responsibility of teaching a class and working together.

Assessment methods and inclusive education practices on curriculum implementation

The Teaching Quality Standard comprises six professional competencies that form the interrelated knowledge, skills and attributes teachers will draw on in a particular context to support optimum student learning (Alberta Education 2017). The competencies, demonstrating a Professional Body of Knowledge and Establishing an Inclusive Learning Environment, provide direction to teachers regarding student assessment in an inclusive classroom (Alberta Education 2017).

Teachers are guided by school jurisdiction policies and procedures on student assessment and evaluation that provide continuous, fair and equitable student evaluation and reporting to parents or guardians (Alberta Education 2019). In an inclusive learning environment, assessment collects, synthesises and interprets data about each student's learning to aid the teacher's decision-making. Assessment informs a series of events that take place over time in the teaching–learning cycle. Each of these elements relies on best practices in assessment and careful analysis of the classroom contextual variables and student learning needs.

The primary purpose of assessment is to improve learning for all students, including those with diverse learning needs. Teachers understand that each learner has strengths and unique needs that can influence learning. Different assessment strategies will be used throughout the teaching–learning cycle to inform the design of classroom curriculum and individualized programs, monitor student learning and make instructional adjustments, and evaluate student learning concerning program goals and learner outcomes.

Assessment for Learning (Formative Assessment)

Assessment for learning means assessment experiences that result in an ongoing exchange of information between students and teachers about student progress toward clearly specified learner outcomes; this information is not used for grading purposes (AAC 2016). The formative assessment data helps the teacher understand each student's strengths and learning needs. This information allows teachers to determine who needs additional support, who needs more challenge, targeted strategies and supports, and who needs different individualized strategies and supports. Formative assessment also helps the students to feel more confident about their learning and when to seek additional support.

Assessment of Learning (Summative Assessment)

Assessment of learning means assessment experiences designed to collect information about student learning to make judgments about student performance and achievement at the end of the periods of instruction. This information is shared with students, parents or guardians and others who have a right to know (AAC 2016). The summative assessment generally results in a grade being assigned. Teachers must base this grade only on what the student demonstrates relative to the provincial learner outcomes or individualized program plan/instructional support plan (IPP/ISP) goals. Other factors, such as behaviour or work habits, can be noted; however, these factors must be reported separately from evaluating the learner outcomes.

Assessment often creates concerns for students and parents that teachers have to address. These concerns can result from confusion regarding the purpose of an evaluation and how an evaluation will apply to all students in the classroom. It is essential to explain how treating all students the same or equally, may not be fair. Fairness is about giving all students an equitable opportunity to demonstrate their learning. This may mean that some students will require adaptations or modifications to an assessment strategy to have a fair opportunity to demonstrate their understanding.

A fair assessment strategy provides the following:

- An opportunity for students to achieve success.
- Meaningful data that reflects students' achievement.
- Flexibility, as required, to meet the individual needs of students.
- Maintains high standards for student learning even when the assessment is individualized
- Accurately measures performance even when the accommodations are implemented (Greatschools, 2015).

Practical assessment is based on the program of studies and considers diverse learners' strengths and learning needs. Teachers must take the time at the beginning of the term to get to know their students and establish a positive working relationship. As well there are several ways teachers can get to know their students as the term begins:

- Review the cumulative record.

- Talk to last year's teacher.
- Talk with parents or guardians.
- Review student work samples (Bennett & Mulgrew 2018).

Teachers will use student assessment data in response to the Intervention (RTI) (Alberta Education) approach to adjust their universal instructional strategies, implement targeted supports and techniques, and implement individualised support for those students who are still not successful.

Assessment Strategies and Supports

Universal Strategies: Learner Profiles describe the ways and conditions in which students learn best, including information on the student's interests, learning preferences and styles, and differences related to gender, culture and personality. The purpose of a learner profile is not to label students but to help teachers better understand what instructional and learning strategies can support student learning. Learner profiles are dynamic and change as the students grow and develop; therefore, it is recommended that teachers work with students and parents as required to update their learner profiles at the beginning of each term (Alberta Education 2010). Kathy Howery, from the University of Alberta, suggests that a learner profile should include

- Formative assessments
- Summative assessments
- Student's interest
- Learning preferences
- Strengths
- Needs
- Examples of supports that have worked in the past (quoted in bc ministry of education 2017).

Targeted Strategies: Scaffolding is an instructional strategy where teachers provide struggling students with additional support to enhance learning and aid in mastering concepts and skills. Scaffolding in assessment includes such strategies as

- Alternative format for students to access information
- Organizers to break down the tasks for students

- Alternative formats for students to provide evidence of learning
- Additional time to learn the material and complete assignments
- Detailed feedback on work in progress. (Bennett and Mulgrew 2018)

Accommodations or Assistive Supports is a change or alteration in how a student is expected to learn, complete assignments or participate in classroom activities. Accommodations include unique teaching or assessment strategies, equipment or other supports that remove, or at least lessen, the impact of a student's individual learning needs. The goal of accommodations is to give students with particular learning needs an equitable opportunity to succeed. Accommodations or assistive supports for assessment include

- Allowing extended time.
- Allowing breaks during a test.
- Reducing the number of questions.
- Breaking the assessment into smaller parts and administering them at separate times.
- Translating the assessment or providing an interpreter.
- Allowing the use of bilingual dictionaries.
- Adapting the text to an appropriate reading level.
- Allowing the student to audio record their responses.
- Provide a separate room.
- Provide noise-buffering headphones.

The teacher must talk with the student's parent or guardian about using accommodation or assistive supports to ensure they understand their child's learning needs and successes (Alberta Education 2006).

Individualized Strategies: Students with specific learning needs often have an Individualized Program Plan/Instructional Support Plan (IPP/ISP) developed by the student's learning team that outlines the components of the student's educational program. The IPP/SLP is a planning document that helps to monitor and evaluate the student's academic program and progress. Some students will have an adapted program, meaning that their educational program is based on the agenda of studies. Still, adjustments are being made to the instructional and learning

processes to address the unique needs of the students. Generally, gifted students and those performing below grade level will be on an adapted program. Some students will have a modified program, meaning their educational program is composed of learning goals significantly different from the provincial curriculum and specifically developed to meet the student's unique needs (Alberta Education 2007).

Whether a student has an adapted or modified program, the learning goals and objectives in the IPP/ SLP will be stated in measurable terms that set the standard for the student's learning. Any accommodations or assistive supports for learning and assessment are also identified. Teachers may need to design specialized classroom assessment strategies and tools to collect evidence to measure student learning specific to the individualized goals in the IPP/SLP. Teachers may choose to involve educational assistants in collecting evidence of student learning using the strategies designed by the teacher, which the teacher will then use to evaluate the student's progress (ATA 2016). Specialized classroom assessment strategies include:

- Observation methods such as anecdotal records, event recording, checklists and rating scales
- Portfolios and reviewing samples of student work
- Performance assessment
- Role play and interviews
- Specialized inventories and rubrics

Benefits of inclusive education practice on curriculum implementation

The importance of the inclusion of diverse students in educational settings has many drivers, spanning from human rights to educational, personal and societal gains. Inclusive education has been shown to provide benefits for all students in improving the quality of education offered, as it is more child-centred and focused on achieving good learning outcomes for all students, including those with a diverse range of abilities (UNESCO, 2009). A carefully planned provision of inclusive education can improve students' academic achievement while also fostering their socio-emotional growth, self-esteem and peer acceptance (UNESCO, 2020).

Moreover, including diverse students can help fight stigma, stereotyping, discrimination and alienation in schools and societies more broadly. Indeed, the Salamanca Statement and Framework for Action (1994) asserts, "Regular schools with an inclusive orientation are the most effective means of combating discrimination, creating welcoming communities, building an inclusive society and achieving education for all."

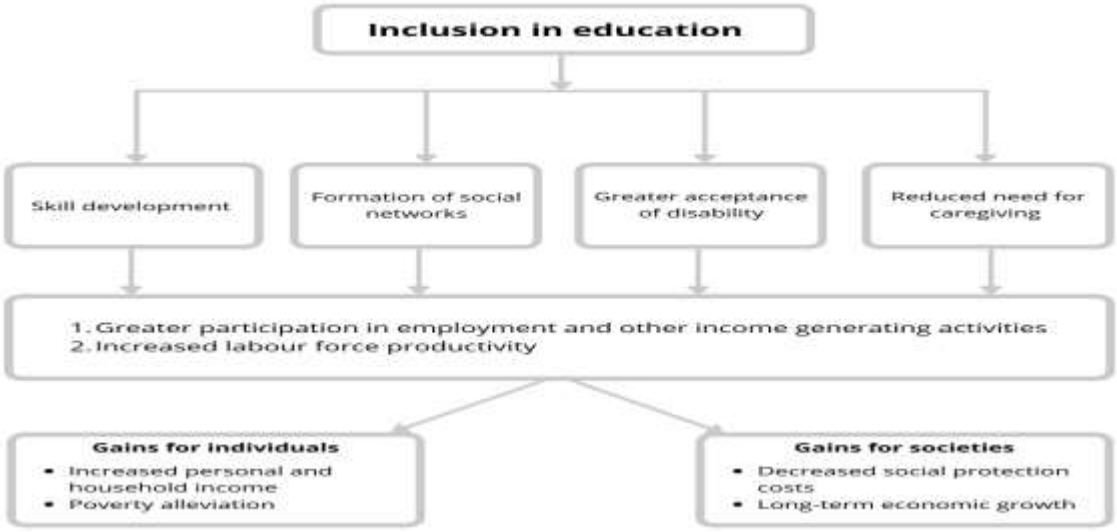
The World Bank also argues that equity and inclusion in education are essential for shared prosperity and sustainable development (World Bank Group, 2016). Disparities in education are one of the major drivers of income inequality, both within and among countries. Without basic education, individuals in the bottom 40% of a nation's income distribution are unlikely to be successful in a globalized economy. The World Bank World Development Report 2012 notes that fair and inclusive education is one of the most powerful levers for a more equitable society (World Bank, 2011).

In an increasingly globalized and complex world, inclusive education can strengthen citizens' trust and sense of belonging and among citizens. Moreover, inclusive education can allow all children to learn about and accept each other's abilities, talents and needs. Through the fostering of meaningful relationships and friendships, this process can strengthen social competencies while also building social cohesion (Council of Europe, 2015).

The range of economic and social effects that inclusive education can procure is wide and applies to very diverse groups of learners. Social inclusion is believed to be one of the positive outcomes of inclusive education (MacArthur, 2013; European Agency for Special Needs and Inclusive Education, 2018), both during children's school years and when they begin their adult lives. In the first instance, it is identified as short-term social inclusion through participation in school and out-of-school activities and in the second instance, it indicates the long-term forms of social inclusion, such as being employed and leading a social life (European Agency for Special Needs and Inclusive Education, 2018).

Moreover, a review by Ruijs and Peetsma (2009) shows that students with special educational needs achieve academically better in inclusive settings than in non-inclusive settings. Research also shows that attending and receiving support within inclusive education settings can increase the likelihood of enrolling in higher education for students with special needs (European Agency for Special Needs and Inclusive Education, 2018). These settings are also beneficial for students that have no disability or impairment, since attending class alongside a student with special needs can yield positive outcomes for their social attitudes and beliefs (Abt Associates, 2016). This interaction can relate to feelings of satisfaction and social efficacy within the current school setting and inform future social interactions and social adaptability in college, communities, and the workplace (Nishina et al., 2019).

Figure 4: Benefits of inclusive education practice



Source: Adapted from Morgon, Banks and Polack, 2015, p29

Challenges of inclusive education practices and curriculum implementation

The inclusion of students with different abilities can be quite challenging for a teacher. There are many suggested reasons for this, such as accommodating the instructional needs of diverse learners (Voltz et al., 2001), including students with a wide range of disabilities (Hardin & Hardin, 2013), demand for teachers to theorise and practice their daily teaching and assessments for all students under their responsibility (Symeonidou & Phtiaka, 2009), lack of

commitment of teachers as a result of low or no incentives, and inclusive education is stressful to most teachers (Chaula, 2014).

The Curriculum: The curriculum has been perceived and implemented from the perspective that general education classrooms have a standardized set of curriculum requirements or pieces of knowledge and skills that every learner must achieve to complete the grade (Stainback & Stainback, 1996). However, this is not the case with mainstream schools with learners who experience learning barriers. Teachers in these mainstream schools feel obliged to deliver a standard curriculum and focus on content that excludes other learners. As a result, learners who experience barriers to learning should be placed in special classrooms outside of the regular class environment (Stainback & Stainback, 1996). These learners need special resources and adaptation to the curriculum or different assessment strategies to help them learn. This is challenging to the teachers because the curriculum that they are expected to implement does not cater for individual differences and can have a negative impact on delivering the subject matter. The rigid and inflexible nature of the curriculum that does not cater for learners who experience barriers to learning can lead to learning breakdown (DoE, 2001a; Lomofsky & Lazarus, 2001). This is a massive challenge to the teachers who are expected to accommodate such learners in their mainstream classrooms and do not have special resources.

Providing a curriculum that accommodates all learners in inclusive settings is crucial to implementing inclusive education (Giangreco, 2007). The curriculum is a focal point of inclusionary school practices. Students who experience barriers to learning should be provided with individualized programming. Law requires teachers to develop an individualized education programme for each student with barriers to learning (DoE, 2001a). These programmes are an appropriate tool for helping educate students with diverse educational needs. In a classroom with different learners, an education team is responsible for considering all possible curriculum content for each learner, as learners learning priorities vary in complexity, depth and breadth (Ryndak & Alper, 1996).

It is in conjunction with attaining knowledge and specific instructional and class management skills to form favourable attitudes towards inclusion. The study by Janney, Snell, Beers and Ranes (1995) found that experience with low-ability children significantly contributed to their

eventual acceptance by teachers. Several other studies conducted by Leyser and Lessen (1985), Steinback, Steinback and Dedrick (1984), and Shimman (1990) have also stressed the importance of increased experience and social contact with children who experience barriers to learning. These studies on teachers‟ attitudes towards inclusion indicate that as the experience of mainstream teachers with children who experience barriers to learning increases, their attitudes change in a positive way (LeRoy and Simpson, 1996). The studies also indicated that teachers with active experience of inclusion held significantly more positive attitudes towards inclusion than those who did not have any experience with inclusion (Avramidis, Bayliss & Burden, 2000).

Teachers' experiences of teaching learners in the context of inclusive education: Several authors describe experience with inclusive education as a factor that influences teachers‟ attitudes towards inclusion of learners who experience barriers to learning. Dealing with learners with disabilities is not a big challenge if the teacher has dealt with such learners before. According to Avissar (2000), Avramidis et al. (2000), Hodge and Jansma (2000) and Jobe, Rust and Brissie (1996), possessing previous experience in teaching learners who experience barriers to learning is a prerequisite to the successful implementation of inclusive education. Teachers with previous experience dealing with learners who experience barriers to learning feel comfortable when they have to implement inclusive practices in their classrooms.

Training and professional development of teachers: Teachers have a significant role to play in the development of schools as inclusive communities and to this end, pre-service teacher education is indispensable. However, Avramidis, Bayliss and Burden (2000), Buell, Hallam and Gamel-McCormick and Sheer (1999), and McLeskey, Waldron, Swanson and Loveland (2001) argued that, unfortunately, many of these in-service development programmes that were intended to promote inclusive education have proved both inadequate and inappropriate, resulting in negative feelings towards the implementation of inclusive education. In a similar vein, the training of teachers for mainstream education did not adequately include learners with difficulties. In their report on the implementation of inclusive education, Browder and Cooper-Duffy (2003) pointed out that many mainstream teachers in different countries are prepared to facilitate social inclusion but do not favour academic inclusion and resist learning new skills.

This resistance to learning new skills from teachers, as Schmidt et al. (2002) argue, is the result of the teacher's‟ belief that they already possess the necessary skills of „good teaching‟. However, if used alone, most traditional teaching methods will not support the success of students with special needs in a mainstream classroom.

Training teachers to be equipped with skills and knowledge in inclusive education is critical for the successful implementation of inclusive education. Research has found that teachers feel they are ill-equipped for inclusive education (Burstein et al., 2004). For the social and academic progress of the learners to be understood, individual teachers require context (Tsokova & Tarr, 2012). Also, a lack of adequate teacher preparation has been identified as a significant barrier to inclusive education in most third-world countries (Sharma, Forlin, Deppeler, & Yang, 2013; Singal, 2005). Additionally, pre-service teacher education is seen as the principal vehicle to ensure teachers acquire the appropriate attitudes and skills to enable inclusive education to be successful (Sharma, Forlin, Loreman, & Earle, 2006). In a study, Salisbury (2006) found that teachers' attitudes towards inclusion were mainly influenced by their education and academic preparation. This is further supported by the study of Lambe and Bones (2006), who stated that teachers who did not have specific training for inclusive education, when compared with teachers who had specific training to teach students with special needs, expressed more positive attitudes towards inclusion. Similarly, Oswald and Swart (2011) found that after completing a course on inclusion, student teachers' attitudes towards inclusion improved, as also their general attitude towards people with special needs. Other studies show that brief practices on inclusion can make a difference in teachers' attitudes (Campbell, Gilmore, & Cuskelly, 2003; Sharma, 2012).

On the other hand, the most significant barrier to the development of inclusion is teachers' lack of knowledge, attitudes, and skills (Forlin, 2001). Overall, teachers have many roles in such a rapidly changing field as teaching. Hence, teachers must have the necessary skills and knowledge to provide inclusive education, as each child is different, and teachers must be able to identify and address their uniqueness. As a result, a wide range of differences can be made ordinary in the general classroom (McLeskey & Waldron, 2013).

Teaching methods/ strategies: Teachers face new challenges in adequately implementing teaching methods due to the trend towards more inclusive education. From the teachers' perspective, using inclusive teaching practices such as differentiation (regarding groups of students) and personalization (regarding individual students) are useful for working with a diversity of students (Lindner and Schwab, 2020; Schwab, 2021). Tomlinson (2014) describes differentiated instruction as a necessary teaching approach for a heterogeneous student population. A fruitful learning environment for every student (with and without special educational needs) can be provided by setting individual academic goals, ongoing external and self-assessment, flexible tasking and grouping strategies, and respect for the individual characteristics of all the students in a class (Tomlinson, 2014). The shift from segregated schools for students with and without SEN has been accompanied by research focusing on common schooling for both groups of students and the efficacy of common schooling for students with SEN (e.g., Ruijs and Peetsma, 2009).

Due to students' diverse characteristics, participation is strongly dependent on the design of pedagogical offers and teaching approaches (McMurray and Thompson, 2016; Petersen, 2016; Ainscow and Messiou, 2018). Against this background, making the inclusion of all students happen is considered to be the objective of teachers' implementation of inclusive teaching practices. In this context, it seems necessary to investigate whether this demand for providing students inclusion through implementing inclusive teaching practices can be fulfilled from the perspective of the measures' recipients, namely the students themselves. Within this research area, studies on the relationship between inclusive teaching practices and students' perceptions of inclusion on school- and classroom levels regarding formal (explicit learning and teaching processes) and informal (social interactions in general, play) educational processes are rare (Venetz et al., 2015).

Teaching/Learning Material: According to Zwane and Malale (2018), inappropriate teaching and learning support materials in most schools negatively impact the implementation process of inclusive education. A study by Adjei, Baffoe, Ansah and Baffoe (2015) shows that learners enjoy and understand more the few lessons in which teachers use teaching-learning resources than the majority of lessons where they fail to use them. With this in mind, it should be emphasised that the teacher is an important element of human resources, and whenever the

word "education" is mentioned, the concept of "teaching and learning" is usually implied. This means that instructional resources should be obtainable in the teaching-learning process Teachers working in special education face a host of challenges. These challenges range from a lack of support from their schools to increasing paperwork relating to students and their disabilities. Add to this the need to manage a wide range of conditions, and the problem can stack up quickly. For example, students with autism have different educational needs from those with other impairments, such as dyslexia or ADHD.

Assessment/Evaluation: Research has found that teachers face major problems assessing written tests and oral examinations for children with disabilities (Masters, 2018). The kind of accommodations that they usually include involve extended time for writing the tests or answering oral examinations (Bourke, Mentis, & Todd, 2010; Bourke & Mentis, 2014). They also make test adaptations based on the impairment of the child, such as different fonts, larger spaces between lines or prints, extraction of too difficult or inappropriate tasks, etc.) (Hussu & Strle, 2010). Moreover, teachers draw fewer data from normative assessments (PAT/psychometric tests) as CWD don't have ready access to the content and it does not directly inform teachers of the students' learning or the teaching needs (Bourke & Mentis, 2014) Brookhart and Lazarus point out that accommodations and scaffolding are useful in giving access to students with disabilities to formative assessments (Brookhart & Lazarus, 2017). Porter, Robertson & Hayhoe highlight the importance of student involvement in classroom assessments in certain types of learning contexts such as further education (Porter, Robertson, & Hayhoe, 2000). Further, teachers also need to take special care in presenting the instructions, ensuring some of the test questions test minimum standard of knowledge, and the assessment schedule is planned with students and arranged in advance (Hussu & Strle, 2010).

National assessments either exclude children with disabilities or include them through accommodations. In total exclusion, the assessment does not include special educational needs and disabilities (SEND) children. In alternate systems, alternate assessment tools with different assessment criteria are used for children with special needs instead of the state-wide assessment. In accommodated systems, accommodations or changes (response rate, scheduling, setting etc.) are made within the assessment but assessment criteria remain the same (Ireland, UK, US). In universally designed systems, a single assessment that is able to

measure the learning of all students without the need for accommodations should be able to measure learning of all students (Douglas et al., 2016).

Theoretical framework on inclusive education practices on curriculum implementation

Inclusive education refers to placing students with special educational needs in mainstream settings and other students without disabilities (Artiles, Dorn, & Christensen, 2006). Inclusive education determines appropriate educational practices used in public education schools by offering various educational services to help all students with special needs best learn according to their abilities and needs (McLeskey, Hoppey, Williamson, & Rentz, 2004). Salend (2011) defines inclusive education as a philosophy that brings stakeholders together to create a school environment based on acceptance and belonging within the school and the community. Theoretical perspectives, as the principal theories supporting inclusive education practices, are the focus of this paper. The focus is to emphasize that the transition from theory to practice relates to applying essential aspects of learning theories to optimize instructional actions (Ertmer & Newby, 2013).

Ertmer and Newby note that learning theories provide curriculum designers with instructional strategies and techniques verified to facilitate classroom learning, which includes the need to implement inclusive education practices for students with special educational needs, especially in general education settings. These instructional strategies and techniques include curricula and instructional design modifications, structure development, and evidence-based practices. Three major theories are considered to underpin inclusive education theory. Effective inclusive education practices should incorporate ideas from each of these theories so that teachers can successfully make curricular and instructional decisions for each student. Therefore, each theory underpinning inclusive education practice is theoretically and practically detailed as follows.

Behaviourism-based Inclusive Education Practices

Theoretically, behaviourism is one of the classical theories of learning and is also recognized as the oldest (Nalliah & Idris, 2014). Behaviourism is a predominant psychological model (Harold & Corcoran, 2013), as suggested by the metaphor for ‘learning as the acquisition of stimulus-response pairs’ (Doolittle, 2014). Behaviourists ‘believe the objective of the theory

is to impart to the learner the knowledge of reality' (Hickey, 2014). Behaviourism occurs when consequences are associated with the stimulus or response that is followed by reinforcement to be maintained (Ertmer & Newby, 2013). Even though behaviourism has been heavily criticized over the years, the behaviourist approach is "still vital and is considered a scientific enterprise" (Abramson, 2013). To summarize, the fundamental principles of behaviourism that support education are: behaviour is learned, behaviour is governed by the setting in which it occurs, teaching does not occur without learning, learning equates to changing behaviour, behaviour is governed by what follows actions, and there needs to be a focus on the observable (Harold & Corcoran, 2013).

Practically, behaviourism-based inclusive education practices include the application of behaviourism in inclusive education settings, which appears in the emphasis on student behaviour and performance in manipulating stimulus materials (Ertmer & Newby, 2013). Examples of behaviourism-based inclusive education practices are included in well-known instructional approaches such as explicit or direct instruction (AlShammari, 2019A; Steele, 2005). The method has shown positive research results with students with special needs in general education classrooms (Al-Shammari, Al-Sharoufi, & Yawkey, 2008). Practices based on explicit or direct instruction are systematic, involving a step-by-step process provided by a teacher and followed by students during instruction (Zhang et al., 2016). In addition, explicit or direct instruction-based practices that break down tasks into their most minor elements are widely used for teaching students with special educational needs in inclusive classrooms (Steele, 2005).

During the instructional process, Behaviourists assess learners to determine at what point to begin instruction and which reinforcers are most effective. The teacher's role during the process is to:

- Decide which cues can elicit the students' desired responses.
- Arrange practices where prompts are paired with the target stimuli, which are expected to elicit the responses in the 'natural' setting.

- Arrange environmental conditions so students can make the correct responses in the presence of those target stimuli and receive reinforcement for those responses (ertmer & newby, 2013).

Basic assumptions and characteristics of behaviourism are embedded in many current instructional practices. For instance, some of the best interventions for students with special needs in inclusive education settings include direct instruction, functional behavioural analysis, assessment, evaluation, and feedback (Hattie, 2008). Direct instruction is commonly delivered in a teacher-led environment during which the teacher facilitates student learning through targeted lessons. For example, the teacher introduces a study, teaches a structured lesson, monitors student understanding, and receives student feedback to ensure understanding. Functional behavioural analysis categorizes and targets specific behaviours and their antecedents to change disruptive behaviours in the classroom and encourage positive behaviour changes. A functional behavioural analysis of a student would involve using a chart with specific targeted behaviours monitored for frequency, time of day, antecedents, and consequences. Formative assessment, evaluation, and feedback assess the learning progression and examine the gaps where remediation or even enrichment is necessary. An example of this in a behaviouristic classroom is the use of "Exit slips", which involve questions posed by teachers and students answer before leaving the classroom for the day, including: "things I learned," "things I found interesting," and "questions I still have."

Therefore, the Behaviouristic theory is related to several of the best practices in inclusive education. Direct instruction is the primary delivery of instruction in behaviourism within a teacher-centred environment in which the teacher designs and delivers lessons based on the objectives of the students. The behaviouristic classroom environment focuses upon conditioned responses, which is the basis of functional behavioural analysis. Since the behaviouristic classroom focuses on condition responses, assessment, evaluation, and feedback, all are considered ideal methods for testing the transfer and generalization of knowledge gained.

Cognitivism-based Inclusive Education Practices

Theoretically, cognitivism essentially focuses on the attributes of one's thinking, memory, self-reflection, and motivation to learn. Piaget argued that "during each developmental stage, the ability to learn and the process of learning is different" (Evgeniou & Loizou, 2012). The cognitive approach focuses on the mental activities of the learner that influence responses and acknowledges the processes of mental planning, goal setting, and organizational strategies. Cognitive theories emphasize making knowledge meaningful and helping learners be more organized and able to relate new information to stored knowledge. In addition, cognitivist approaches emphasize thought processes and their importance in learning, including memory, thinking, reflection, abstraction, and metacognition, which are all needed in the learning process (Petersen, 2014). Therefore, cognitivist instruction "must be based on a student's existing mental structures or schema to be effective" (Ertmer & Newby, 2013).

Practically, cognitivism-based inclusive education practices involve the applications of cognitivism in inclusive education settings, which appears in the emphasis on mental information processing and interactions in guiding student learning (Ertmer & Newby, 2013). Students are encouraged to express and connect their prior knowledge, learning experiences, and abilities to learn new information being provided to them. For instance, instructional strategies such as framing, outlining, mnemonics, concept mapping, and advance organizers should be specifically used to support the cognitive needs of students with special educational needs (West, Farmer, & Wolff, 1991).

Specific assumptions or principles that have direct relevance to instructional design practices include:

- Emphasis on the active involvement of the learner in the learning process (i.e. self-planning, monitoring, and revising techniques)
- Use of hierarchical analyses to identify and illustrate prerequisite relationships (i.e., cognitive task analysis procedure)
- Emphasis on structuring, organizing and sequencing information to facilitate optimal processing (i.e., use of cognitive strategies such as outlining, summaries, synthesizers, and advance organizers)

- Creation of learning environments that allow and encourage students to make connections with previously learned material (i.e., recall of prerequisite skills, use of relevant examples, analogies) (Tunmer, Chapman, Greatney, & Prochnow, 2002).

Cognitivism-based inclusive education practices are implemented by applying different instructional approaches focused on learning activities, such as note-taking (Boyle & Rivera, 2012), underlining (Swanson, Orosco, & Lussier, 2014), summarizing (Wittrock & Alessandrini, 1990), writing to learn, outlining and mapping, and use of the PQ4R method (Slavin, 2009). These instructional approaches have shown positive results among students with special needs in general education classrooms. Other practices used, based on cognitivism, for students with special needs in inclusive education classrooms are various metacognitive strategies, which are evidence-based such as study skills, concept mapping, and reciprocal teaching (Al-Shammari, 2019B; Hornby, 2014). In line with Hornby, Hattie (2008) also offers specific best practice interventions best used for students with special needs in cognitivism-based inclusive education settings, which include metacognitive strategies. Metacognitive strategies teach students to understand the way they think. Students can plan, organise, and communicate information and learning through targeted study skills, concept mapping, and reciprocal teaching. Another example of a metacognitive strategy in a cognitivism-based classroom is a flow chart that organises information. Thus, cognitivism can be related to the key components of the best practices in inclusive education by helping students to assimilate and accommodate the information.

Constructivism-based Inclusive Education Practices

Theoretically, constructivism focuses on creating cognitive tools that reflect the wisdom of the culture in which they are used and the insights and experiences of learning. Constructivism involves understanding the importance of the social dimension during learning through observation, treatment, interpretation, and adaptation of information in building a cognitive structure. Vygotsky (1962) emphasized the social role of learning because of its impact on cognitive development through learning and interaction between children and their peers, parents, and teachers. Constructivism equates to learning that involves constructing, creating, and inventing for individuals to develop their knowledge and meaning. Constructivists believe that understanding the brain informs teaching (Lenjani, 2016). Akpan and Beard (2016) state

constructivism is the best paradigm for teaching all learners, particularly students with special educational needs.

Teachers are essentially considered facilitators, providing essential information and organizing activities for students to discover their learning (Liu & Ju, 2010). Lenjani (2016) details the main guiding principles of constructivism:

- Learning is searching for meaning
- Meaning requires the understanding of the whole as well as the individual parts
- Teachers should have an understanding of the mental models that learners use to perceive their world and the assumptions that they make to support their models
- The purpose of learning is that an individual construct their meaning and does not include simply memorizing information for the correct answers or repeating merely what someone else has stated.

The key to constructivism is that learning should consist of learner-centred, task-based, hands-on and mind-on activities (Shi, 2013) while being meaningful and closely related to practical and real-life experiences (Lenjani, 2016). In addition, constructivist-based classroom activities should provide internal and external scaffolding strategies for all learners, which is essential for students with special educational needs (Shi, 2013).

Practically, constructivism-based inclusive education practices are the applications of constructivism in inclusive education settings, involving instructional methods and strategies to assist learners in actively exploring complex topics. Possible strategies for exploring these topics include: situating tasks in real-world contexts and using real-life examples, utilizing cognitive apprenticeships (i.e. modelling and coaching), presenting multiple perspectives (i.e. collaborative learning to develop and share alternative views), including social negotiations (i.e. debate, discussion), encouraging reflective awareness, and providing considerable guidance on the use of constructive processes (Ertmer & Newby, 2013).

Graphic organizers and self-monitoring have been suggested as practical strategies for teaching content subjects, encouraging confidence and success, accomplishments and errors (Lenjani, 2016). The focus on key ideas and relationships between these tools is stressed as opposed to separate pieces of knowledge (Lenjani, 2016). For students with special needs, the most

important facts or information related to key ideas under discussion should be prioritized by teachers, thereby not overwhelming them with the need for memorization.

According to Hulgin and Drake (2011). "Inclusive education requires a constructivist approach to teaching and learning" Making this fundamental shift involves an explicit critique of assumptions, practices, and structures associated with a positivist approach. Hulgin and Drake also commented that constructivism ‘rejects the notion that there are instructional strategies that are effective, regardless of context, including students' backgrounds and interests' but that it acknowledges and respects the wholeness and particularity of learning as situationally constructed’. Active learning is an example of constructivism-based inclusive education practices (Steele, 2005). Steele suggested that “teaching students to summarize, paraphrase, predict, and use visual images, helps students with learning disabilities understand and remember” (2005, p. 2). Some practices, such as summarizing, predicting, and using visuals, have also been found to have high to medium effects on students with special needs (Hattie, 2008).

By adopting a constructivist perspective, Botha and Kourkoutas (2016) traced the support that children with behavioural difficulties receive and the development and implementation of innovative practices that support these children. The authors commented that children with behavioural problems might often develop varying psychological symptoms, including social withdrawal, learning difficulties, lack of motivation, and disengagement from school. Botha and Kourkoutas report inadequate teacher training in managing children with behavioural problems, which is why teachers tend to refer students for external support. Additionally, inadequate inclusive education training is reported as a reason teachers lack an understanding of the range of inclusive approaches and the need for effective collaboration with professionals, such as psychologists and counsellors. Such collaborations are considered a prerequisite for inclusive education. Therefore, a community of practice using a constructivist approach ‘embraces social engagement in practices that are directly related to the role of schools, families, and communities. It also provides opportunities to enhance the social integration of children, including those with behavioural difficulties, in schools. It also allows students to co-construct knowledge gained, including ways of supporting these children in their immediate communities (Botha & Kourkoutas, 2016).

Students in a constructivist inclusive education setting would benefit most from the following best practices, as Hattie (2008) reported, such as peer tutoring and cooperative learning. Through peer tutoring and collaborative learning, students can interact with each other and actively learn in a real-world setting. Cooperative learning groups, for example, may be formal or informal. Formal groups may be organized by student ability or interest, whereas informal groups may be spontaneous, within which students are asked to pair and brainstorm on topics. In the constructivist inclusive classroom, the belief is that students learn from experience and real-life application.

In this paper, the researchers have considered the role of three key theories related to student learning. Each theory focuses on strategies for supporting students with special educational needs. Still, we would argue that by adopting only one of these theories, providing effective and inclusive education for the diverse range of students in general education classes is impossible. Behaviourism-based inclusive education practices focus on how to give instruction and on which reinforcers are effective for particular students with special needs in general education classrooms. The most critical factor for students with special needs is the arrangement of stimuli and consequences that will be implemented within the environment. We propose that applying behavioural approaches is particularly pertinent when supporting learners with social and behavioural difficulties and even more so when these applications co-exist with learning difficulties. Cognitivism-based inclusive education practices are specifically the applications of cognitivism in inclusion settings, which emphasise mental information processing and interactions to guide student learning. We argue that these are essential as they provide the primary guidance and structural processes for teaching that students with special needs require to access the regular class curriculum. Constructivism-based inclusive education practices emphasise making learning more meaningful and using real-life experiences. We propose that while this approach alone would be insufficient for providing the support needed for students with special needs to succeed in general classes, its use complements the other theories.

Empirical review

This section is reviewed the summary works of other great researchers. It looks at the works of other researchers in the field. This work highlights the following empirical findings of the following articles.

A study conducted by Shani and Hebel (2014) at Levinsky College of Education and Tel Aviv University explores Educating towards Inclusive Education: Assessing a Teacher-Training Program for Working with Pupils with Special Educational Needs and Disabilities (SEND) Enrolled in General Education Schools. They found that implementing inclusive education is one of the educational system's major challenges. One of the main difficulties in implementing inclusive education is that general education teachers receive insufficient training to work in complex teaching contexts and to respond to the unique needs of all the pupils in their classrooms. This research aimed to assess the components of an innovative integrative training program developed in a teacher education college in Israel. That integrates special education studies with elementary/secondary general school studies (curriculum and field experience), thus contributing to graduates' sense of self-efficacy in integrating and including pupils with special educational needs and disabilities and helping them develop teaching methods that promote inclusive education.

Similar to Allday, Neilsen-Gatti and Hudson's (2013) findings, this research indicates that inclusive education develops out of dialogue among three primary components. The first is that the teacher should develop personal commitment and responsibility to pupils with special educational needs and disabilities as part of the teacher's professional identity and job perception. The second is for the teacher to become familiar with the unique attributes of pupils with special educational needs and disabilities and with customized teaching methods for individual pupils and groups of learners. The third is that the teacher must develop the ability to recognize and analyze the factors in the school context that support or hinder the inclusion of pupils with special educational needs and disabilities.

The research findings also point to the importance of experience with IE during the training period and the importance of developing the ability to conceptualize and connect between theory and practice. Knowledge "about" and knowledge "how" to teach pupils with special educational needs and disabilities are undoubtedly important. Yet, it is no less essential for

teachers to see the inclusion of pupils with special educational needs and disabilities as an integral part of their worldview and their job. Practising inclusive education during their training is also essential. Not only does practical experience in teaching pupils with special educational needs and disabilities convey the ability to cope with customized teaching. It also provides a platform for identifying perspectives and basic assumptions related to the teacher trainee's worldview regarding the inclusion of pupils with special educational needs and disabilities.

Yılmaz (2021) conducted research work to examine Who and How Do I Include? A Case Study on Teachers' Inclusive Education Practices. The purpose of his study was to determine the perceptions and practices of teachers about inclusive education and to propose solutions to the problems experienced by the teachers in light of the study findings. The study was carried out using a qualitative research approach and a case study design. The participants of the study consisted of 20 primary school teachers who worked in public schools in the 2019-2020 academic year and participated voluntarily in this study. Data were analyzed through descriptive analysis techniques. As a result of this study, it was found that the teachers experienced a lack of conceptual clarity regarding the definition of inclusive education and a great majority of them focused on the main philosophy of inclusiveness, yet few of them attempted to relate inclusiveness to instructional practices. Moreover, the findings revealed that the teachers did not perform activities directed to the application of inclusive education in their classes and that they had different expectations from the Turkish Ministry of National Education, school administrations, nongovernmental organizations (NGOs), and parents.

This study revealed that teachers generally experienced a lack of conceptual clarity regarding the definition of inclusive education. Some teachers consider inclusive education as the education given to at-risk/disadvantaged students, disabled students, or given by the students' levels of learning, while others consider it a means of addressing all the students in a class. The findings of this study are consistent with some studies in the literature. For example, the results of the study conducted by Bayram and Öztürk (2020) revealed that a significant portion of teachers' knowledge levels and classroom practices regarding inclusive education is not sufficient and effective. Dukpa and Kamenopoulou's (2018) study also showed that most participants relate the concept of inclusive education with the education of the disabled.

Similarly, Azueta and Kamenopoulou (2018) found that the participants defined inclusive education as the provision of opportunities for disabled children to study together with their peers. Slee (2010), on the other, claimed that inclusive education includes special education and requires critical thinking about identity and difference, discrimination and disadvantage, and inclusion and exclusion.

Moreover, the findings present that most teachers did not diversify their instructional materials by not adjusting them to students' differences, interests, abilities, learning speed, and disadvantages. The findings of Dukpa and Kamenopoulou's (2018) study revealed that the participants believed there were not enough teaching-learning materials to implement inclusive education. Similarly, Azueta and Kamenopoulou (2018) claimed that the participants thought that effective inclusive education depends on adequate resources. One of the important results of this study is that the great majority of teachers did not differentiate the assessment and evaluation by individual differences, interests, and needs of students. The teachers said they considered the changes in student attitudes and behaviours while evaluating them, made observation-based assessments and evaluations, and evaluated students with disabilities by considering their performances.

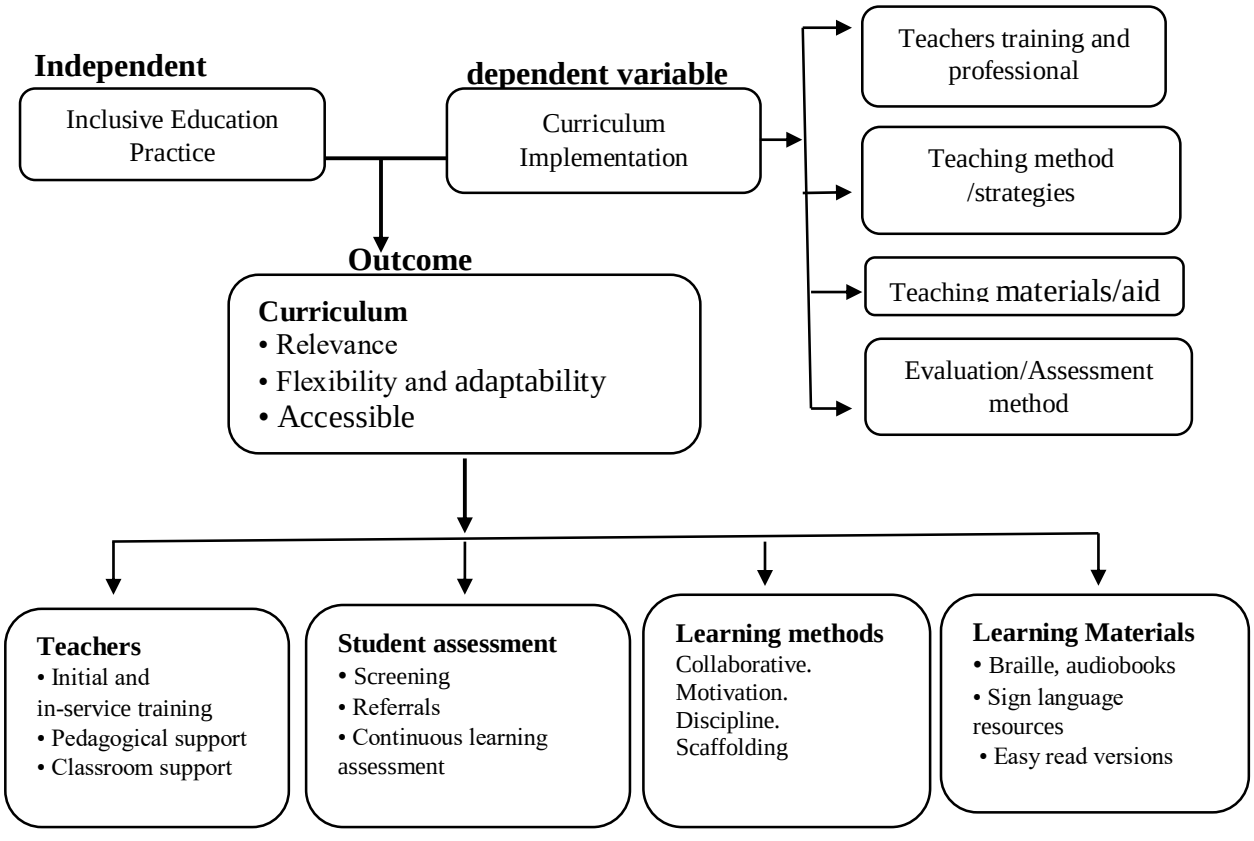
Lorenzo-Lledó, Lorenzo, Lledó and Pérez-Vázquez (2020) of the Department of Development Psychology and Teaching of the University of Alicante (Spain) researched on inclusive methodologies from the teaching perspective for improving performance in university students with disabilities. They found that one of the challenges proposed by the European framework for higher education has been to develop a quality and accessible university education in order to reduce situations of exclusion of disabled students. In this sense, it is essential to reduce the existing gap in the academic performance of this group with respect to other students. The general objective of this study has been to analyze the application of inclusive methodologies in university students with disabilities from a teaching perspective. The adopted methodology was non-experimental quantitative with a sample of 313 teachers from the University of Alicante who have taught students with disabilities and who responded to a questionnaire designed ad hoc of 51 items. The results obtained show that teachers frequently use visual aids and use the same materials both in theory and in practice. Concerning perceptions, teachers consider that students with disabilities should acquire the same skills as the rest of their

classmates, and it is not difficult for them to teach them. Furthermore, the results showed significant differences in perceptions according to the professional category and the branch of knowledge of the teachers. From those mentioned above, it can be concluded that, although positive changes are perceived in teaching methodologies, it is necessary to continue making progress in improving teaching practice and the quality of education that facilitates the conditions for the academic performance of people with disabilities in Spanish universities.

Conceptual framework

The conceptual framework shows the influence of curriculum implementation on inclusive education practice in secondary schools. The conceptual framework was based on the research objectives and the review of related literature on inclusive education practice and curriculum implementation.

Figure 5: Conceptual framework



Source: researcher 2023

CHAPTER THREE
METHODOLOGY

This study aims to examine the inclusive education practices on curriculum implementation in public secondary schools in the Mfoundi Division. This section discusses the research methodology used for collecting and analysing data. It reveals the processes used to collect data from the field. The section opens with a description of the research design and how the study was carried out. Next, we discussed the study area, the population of the study, the target population, and the accessible population from which our sample size was derived. We then received the sample and the sampling techniques that were employed. The data-gathering tools and methods for validating them were discussed. The processes for administering the instruments were also discussed, data analysis techniques elucidated, ethical considerations, and reiteration of the hypothesis.

Research Design

A mixed method was used for this study. Mixed methods research combines and integrates qualitative and quantitative methods in the same study. The overall purpose and central premise of mixed methods studies are that combining quantitative and qualitative approaches provides a better understanding of research problems and complex phenomena than either approach alone (Creswell & Plano Clark, 2007). Better understanding can be obtained by triangulating one set of results with another, thereby enhancing inferences' validity. Greene, Caracelli, and Graham (1989) point out other important purposes, rationales and advantages of mixed methods research: complementarity (elaboration or clarification of the results from one method with the findings from the other method), development (when the researcher uses the results from one method to help develop the use of the other method) and expansion (seeking to extend the breadth and range of inquiry by using different methods for different inquiry components).

Area of Study

The purpose of this section is to describe the study area in terms of locality, topography, and history. A research area is a physical site where a study or a current research project is being conducted. This study was conducted in the Mfoundi Municipality of the Centre Region of Cameroon. The Mfoundi Municipality was purposively sampled because this is where the

Curriculum Development Centre in Cameroon is and where teaching and learning resources are developed. Therefore, the researcher wanted to investigate on inclusive education practices and curriculum implementation in public secondary schools.

Mfoundi is a division of the Centre region in Cameroon. The Mfoundi division was created following Decree No. 74/193 of March 11, 1974 separating it from the division of Méfou (today itself divided into Méfou-et-Afamba and Méfou-et-Akono). The division covers an area of 297 km2 and, as of 2022, had a total population of 2,881,876. The division forms the Yaoundé capital and greater area.

The Mfoundi division has only one urban community: However, each of the seven current subdivisions has an urban council elected and headed by an urban mayor. The urban community covering the entire Mfoundi division makes it a community with a special status.

The Mfoundi division has 7 sub-divisions:

1. Yaoundé I (Nlongkak)
2. Yaoundé II (Tsinga)
3. Yaoundé III (Efoulan)
4. Yaoundé IV (Kondengui)
5. Yaounde V (Essos)
6. Yaoundé VI (Biyem-Assi)
7. Yaoundé VII (Nkolbisson

Population of Study

The target population is comprised of a group of individuals and objects from which samples are taken for measurement. Amin (2004) viewed it as a complete set of elements (persons or objects) that possess some common characteristics defined by the sampling criteria established by the researcher. In addition, the scholars stated that a population also refers to the larger group from which the sample is taken. The population in this study consisted of secondary school teachers.

Target population

The researcher intends to generalize the findings to this population. The target population, often known as the parent population, may not always be reachable to the researcher (Amin, 2005). For Asiamah et al. (2017), the set of people or participants with particular traits of

interest and relevance is referred to as the target population, and it is the portion of the general population that remains after it has been refined. The researcher must therefore identify and exclude members of the general population who might not be able to share experiences and ideas in sufficient clarity and depth from the target population. Thus, this study's target population comprises ten (10) schools drawn from the seven subdivisions of Mfoundi. Teachers were chosen because they are the sole guarantors of quality education in the country, which is why emphasis should be placed on inclusive education practices and curriculum implementation.

Table 1: Distribution of target population

No	Name of School	Sub-division	Target Population
1.	Government bilingual high school Emana	Yaounde 1	175
2.	Government bilingual high school Nyom	Yaounde 1	85
3.	Government bilingual high school Nkol-Eton	Yaounde 2	185
4.	Government bilingual practising high school Yaounde	Yaounde 3	244
5.	Government bilingual high school Ekounou	Yaounde 4	194
6.	Government bilingual high school Mimboman	Yaounde 4	169
7.	Government bilingual high school Yaounde	Yaounde 5	198
8.	Government bilingual high school Etoug-Egbe	Yaounde 6	284
9.	Government bilingual high school Mendong	Yaounde 6	276
10.	Government bilingual high school Ekorezock	Yaounde 7	163
	Total		**1973**

Source: Division of personnel, the divisional delegation of secondary education, 2023

Table 1 shows the total number of teachers in all GBHS in Mfoundi. Therefore, ten (10) government bilingual high schools in Mfoundi have a total population of 1968.

Accessible population

This is the population from which the sample is actually drawn (Amin,2005). Asiamah et al. (2017) support this by postulating that after eliminating every member of the target population who might or might not engage in the study or who cannot be reached during that time, the accessible population is then reached. The last group of participants is the one from whom data is gathered by polling, either the entire group or a sample taken from it. If a sample is to be taken from it, it serves as the sampling frame. People eligible to engage in the study but unable to participate or would not be available at the time of data collection are the accessible population. The accessible population of this study is drawn from seven (07) government bilingual high schools where teachers of the English sub-system of education were targeted.

The researcher, therefore, had access to 1432 teachers drawn from the seven (07) schools, as seen below.

Table 2: Distribution of accessible population per school

No	Name of school	Sub-division	Accessible population
1	Government bilingual high school Emana	Yaounde 1	175
2	Government bilingual high school Nkol-Eton	Yaounde 2	182
3	Government bilingual practising high school Yaounde	Yaounde 3	244
4	Government bilingual high school Ekounou	Yaounde 4	194
5	Government bilingual high school Yaounde	Yaounde 5	198
6	Government bilingual high school Mendong	Yaounde 6	276
7	Government bilingual high school Ekorezock	Yaounde 7	163
	Total		**1432**

Source: Division of personnel, the divisional delegation of secondary education, 2023

Table 2 above shows the accessible population of 1432 in the targeted seven schools.

Sample of the study

The sample of this research work was drawn from the accessible population of 1432 teachers of the English- system of education from the seven schools the researcher had access. A good sample is one that statistically represents the target population and is sizable enough to provide an answer to the research issue. Amin (2005) views a sample as a portion of the population whose results can be generalized to the entire population. The author adds that a sample can also be considered representative of a population. Majid (2018) corroborates this by asserting that because the community of interest typically consists of too many people for any research endeavour to involve as participants, sampling is a crucial tool for research investigations.

The sample size was determined using Research advisor sample size table (2006), which constituted 306 teachers, drawn from seven schools representing the seven sub-divisions in Mfoundi. They were drawn in such a way that all teachers of GBHS should be represented.

Table 3: Distribution of sample per school

No	Name of school	Sub-division	Accessible population	Sample
1	Government bilingual high school Nkol-Eton	Yaounde 2	182	44
2	Government bilingual high school Emana	Yaounde 1	175	44
3	Government bilingual practising high school Yaounde	Yaounde 3	244	45
4	Government bilingual high school Ekounou	Yaounde 4	194	44
5	Government bilingual high school Yaounde	Yaounde 5	198	44
6	Government bilingual high school Mendong	Yaounde 6	276	45
7	Government bilingual high school Ekorezock	Yaounde 7	163	40
	Total		**1432**	**306**

Table 3 above shows the sample of the study drawn in accordance with the Research advisor sample size table (2006).

Sampling technique

Every research involves, to some degree or another, a sampling process. Sampling is one of the most important steps in research; it will lead to valid results when carefully done. Sampling is a process of selecting representative portions of a population that permits the researcher to make utterances or generalizations concerning the said population. It can also be the process of selecting elements from a population so that the sampled elements selected represent the population. Sampling is involved when any choice is made about studying some people, objects, situations, or events rather than others. A good sample should be representative of the population from which it was extracted. Regardless of the sampling approach, the researcher should be able to describe and relate the characteristics to the population (Amin, 2005).

Sampling techniques refer to the various strategies a researcher uses to draw out a sample from the parent population of the study (Amin, 2005). There are two main sampling techniques; probability and non-probability techniques. The sampling technique suitable for this study is probability sampling, in which all the elements of the population have some probability of being selected. Probability sampling will provide a base for the researcher to make generalizations about the population.

The type of probability sampling technique employed in this research is simple random sampling (SRS). Amin (2005) opined that a simple random sample is a sample obtained from the population in such a way that samples of the same size have equal chances of being selected. The researcher proceeded through this method by selecting the accessible population comprising seven government bilingual high schools in Mfoundi. This was done through the random number method, in which Amin (2005) says if there are numbers that identify the elements of the population, then the random number method will be appropriate. Through this technique, no school or teacher was left out, ensuring the representativeness of all government bilingual high schools in the Mfoundi division.

Research Instruments

An instrument is any tool that has been methodically built to collect data and should be gathered accurately. The researcher collected data using three instruments: an interview guide, a questionnaire and an observation checklist. The three instruments were used to collect both qualitative and quantitative data to answer the research questions raised in the study. It was important to triangulate using different data collection instruments to ensure the study's validity and reliability.

Interview guide

For several reasons, the interview is used as a research method of collecting qualitative data in this study. Firstly, the interview adopted in this study is purposely designed to gather relevant data on teachers' views on a particular subject, which is teacher training towards inclusion in Cameroon, to illustrate such a definite phenomenon within a specific context (Basit, 2010). Secondly, it is an excellent way of accessing individuals' meanings, feelings, and opinions of events and structures of reality (Punch, 2009), and seeking and gaining in-depth data (Basit, 2010). Lastly, the participant is able to ask the researcher to further explain a question or meaning of any term that he or she may not understand or provide more clarification to their answer when needed while the researcher is able to probe responses of participant to ensure accuracy of data (Basit, 2010; Hobson & Townsend, 2010).

Semi-structured interview

The semi-structured interview used in this study allows researcher to have a systematic guideline covering a set of reflective questions which is formulated in response to collecting data that would enable researcher to answer the key research questions at the end; at the same time, there is still a room given to both participant and researcher to clarify one another's understanding, and to ask follow-up questions in case researcher wants to reach for more detailed and comprehensive response (Basit, 2010; Hobson & Townsend, 2010; Newby, 2010).

A set of six (6) open-ended questions was formulated and put together for the interview guide, including inquiry about general information of participants. The key reason for using open-ended questions mainly in the guideline is because this type of questions enables participant to overtly express and describe how they see, think and feel (Creswell, 2012) about circumstances that has happened in reality. However, during each interview there were times that close-ended questions were asked in order to confirm correctness of given responses. The interview questions were generated based on the reviewed literature with the hope of filling in the gap mentioned in the chapter two.

Participants

For some practical reasons, selection of participants in educational research sometimes cannot be done randomly (Hartas, 2010). Especially within qualitative approach where small-scale research being conducted (Basit, 2010), it is very unlikely for researcher to study everyone in all places covering everything that has happened (Punch, 2009). In such cases, non- probability sampling is the most suitable way of selection (Basit, 2010; Hartas, 2010; Newby, 2010).

Among several types of non-probability sampling (Basit, 2010; Flick, 2014; Hartas, 2010; Punch, 2009), this study used a method of purposive or judgemental sampling in the process of selecting participants (Bryman, 2012). In this study, four participants were chosen from one public school in Mfoundi division. All four of them were teachers who underwent pre- service teacher training through their three-year degree in education, and were currently teaching. The reason behind this was to ensure that the participants had formerly gone through the pre-service teacher training and had had experience in the in-service teacher training. Out of four

participants, two of them were male and the other two were female. Each of them graduated from different universities. Also, they had different duration of experience in teaching.

Questionnaire

According to Creswell (2009), a questionnaire takes a quantitative approach to measure perceptions and provides data upon which generalizations can be made on the views of a given population on a particular phenomenon. This study used a closed-ended questions, including Likert-style rating scales and dichotomous questions. These closed questions were simple to code and take little time to complete. This study's self-administered questionnaire was preferred because the targeted respondents could read and express themselves effectively.

The collection of the research-developed questionnaire titled: Inclusive Education Practices (IEP) has two parts; A and B. Part A contains information on the personal data of the respondents, while part B contains twenty-five (20) statements built in three clusters A, B and C. Cluster A of the questionnaire hinged on teaching materials to achieve effective inclusive education practices. Cluster B of the questionnaire concentrated on the teaching methods for conducting effective inclusive education practices. Cluster C of the questionnaire addressed evaluation or assessment methods for achieving effective inclusive education practice. This enables us to obtain information on the dependent variable, which is the actual problem.

Table 4: Variables and statements

Variables	Statements
Teaching materials	1, 2,3, 4, 5,6,7
Teaching methods	8, 9, 10, 11, 12, 13, 14, 15
Evaluation and assessment method	16, 17, 18, 19, 20

All the three-cluster had five statements and above, all relating to the research questions that guided the study. The response format for clusters A to B is based on a four-point scale of strongly agree (SA), Agree (A), Disagree (D) and strongly disagree (SD). In other words, the higher the aggregate scores on the rating scale, the more positive the response of the subjects and the lower the score, respondents indicated their level of agreement by ticking (√) on the rating scale.

Table 5: Questionnaire options and corresponding weights on the Likert scale

Option	Weight
Strongly Agree (SA)	4 Points
Agree (A)	3 Points
Disagree(D)	2 Points
Strongly Disagree (SD)	1 Point

Table 5 shows how the questionnaire was weighted with the various options, from 5 points for SA to 1 point for SD.

Validation of the Instrument of Data Collection

Validity refers to the measurement instrument and the level to which it saves the purpose of its design. According to Amin (2005), Validation refers to the instrument's accuracy in measuring what the researcher intends to measure. The instrument's validity can be affirmed because the questions were simple, understandable and easy for the respondents to answer. Face validity was adopted this was done by giving the initial draft of the questions to the supervisor in charge who examine the adequacy of the statement relevance and suitability of language, structuring and sequencing of ideas and appropriateness of the instrument.

Observation Guide

Amin (2005) recommended using an observation checklist as an important instrument that minimises or eliminates biases resulting from people offering information about themselves. The observation checklist was used to collect data on inclusive education practices on curriculum implementation in public secondary schools in the Mfoundi Division. The researcher observed two lessons (geography and chemistry) from seven (7) sampled schools. The observation guide helped the researcher to collect information on inclusive education and the availability of teaching and learning resources.

Face Validity

Face validity is a subjective assessment of whether the instrument appears to measure what it intends to measure. The supervisor in charge of the dissertation for examination and screening in case of any error carefully studied the questionnaire. Some were adjusted and maintained, and others were disqualified.

Content Validity

The supervisor examined the statements on the questionnaire in relation to the objective of our work. After proper examination and acceptance of the statements, the content of the instruments was made valid. It was distributed to Teachers of the selected schools and collected a week later. The researcher permitted the respondents to pose questions where necessary during the exercise. In the end, most of the copies were collected, and the return rate was recorded.

Test retest

The researcher then conducted a pilot test in the Government Bilingual High School Etoug-Egbe, which did not constitute part of the sample. We did a pilot study because we wanted to develop and test the adequacy of the research instrument. This procedure ensures the content validity of the instrument. It might also give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated.

Reliability of the study

Reliability refers to the accuracy and consistency of the measuring instrument (Amin, 2004). Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. Reliability was done using a pre-test technique through a pilot. This was done through a pilot study conducted in a district other than the one sampled. The exercise helped the researcher to check if the questions phrased drew a response from the participants and if the sentences read well, as well as transmitting the same message to the participants. After the piloting exercise, the questionnaire was evaluated, and corrections were made to come up with a good questionnaire. The results obtained after piloting were compared to ensure consistency in the instruments that were used for data collection.

Method of data collection

The researcher got ethical clearance from the University of Yaoundé I before data was collected. Then the researcher obtained an introduction letter from the Dean of the Faculty of Education at the University of Yaoundé I to facilitate the collection of data in the field. This was done in order for him to be given permission to interact freely with the selected participants

without abrogating any procedure. Consent was also sought from all participants. The researcher first administered the questionnaire to the teachers from the selected schools in Mfoundi Municipality. After that, the researcher observed five (5) lessons using the lesson observation checked list.

Methods of data analysis

Quantitative data were analysed using descriptive and inferential statistics. A regression method was used. Data were presented using tables, and descriptive statistics like percentages, frequencies, and means were used. Correlation and the statistically more advanced method of simple linear regression were used in data analyses.

Qualitative data using thematic analysis. Thematic analysis is chosen as the most appropriate method here since it represents the thematic content of qualitative data such as interview transcripts (Anderson, 2007) through the identification and analysis of common themes or patterns of meaning in the set of data supplied in this stage (Anderson, 2007; Joffe, 2011). In addition, this way of analysis can provide the researcher the end result, which features the most noticeable yet valuable constellations of meanings found in the data (Anderson, 2007). Importantly, these assemblages are not just collections of plain words or texts but contain several dimensions such as cognition, emotions and attitudes, and symbols (Anderson, 2007).

The first step of the analysis stage was transcribing all four interviews. Then the researcher took some time to look at the interview questions in the guide to generate the criteria (Anderson, 2007) that would be used later on when sorting out the relevant responses and whether they should be included. At this point, research questions and the reviewed literature were largely used since the criteria were supposed to be based and closely related to them. Through this step, the final edition of criteria eventually came out. After that, all related responses were rearranged and adjusted where suitable under these finalized criteria in order to have all relevant data ready for the analyzing stage.

In order to analyze data, the researcher segmented those data and divided them into meaningful analytical units (Anderson, 2007). The similar units of meaning were put together and coding of each unit was also initiated and carried on all the way through. Keywords from similar units

were used as initial themes or categories at this point. While this process was proceeding, the researcher also revised the units and categories to ensure no information was missing and rearranged the units and re-label the categories where suitable.

At the end of the analysis stage, there were 43 code segments produced which were later reduced by assembling those that were similar into the same categories. At this point, 13 categories were eventually developed and subsequently reorganized in order to be presented within four extensive themes.

The Extraneous Variable

The extraneous variable is any variable that, if not controlled, can affect the experimental research outcome or result. In this study, the extraneous variables are the facilities for education, the behaviour of the teachers, and rewards

Expected Results

After having tested our variables, we expect to see whether inclusive education practices have an effect on teachers' training, teaching materials, teaching methods and assessment/ evaluation method

Ethical consideration

Kumar (1996) defined the term ethics as principles of conduct that are considered correct, especially those of a given profession or group. Wellington (2000) advanced that an 'ethic' is a moral principle or code of conduct that guides what people do. Certain behaviour in research, such as causing harm to individuals, breaching confidentiality, using information improperly and introducing bias, is regarded as unethical. For this reason, in this study, ethical clearance was obtained from the Ethics Committee of the University of Yaounde before going out for data collection. Responses in this study were treated with maximum confidentiality as the data was purely used for academic purposes.

The return rate of the instrument

The return rate indicates the number of questionnaires that were received at the end of the research after the questionnaires were administered to respondents. The return rate for this study was calculated using a simple percentage based on the formula below

$$R = \frac{\sum RQ}{\sum AQ} \times \%$$

Where;

R= Return rate

∑RQ= Sum of questionnaires returned

∑AQ= Sum of questionnaires administre

% = Percentage expressed as a hundred

The rate of return of questionnaires for this study was calculated as follows;

Total number of questionnaires administered = 306.

Total number of questionnaires returned= 293.

Therefore, return rate is = 293⁄306 * 100 = **95.75%**

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

This study aims to investigate the influence of inclusive education practices and curriculum implementation in public secondary schools in Mfoundi Division. This chapter presents the statistical results of the conducted analysis by illustrating the sample's demographic characteristics, descriptive results, correlation, and testing research hypotheses using a simple linear regression analysis method.

Data Screening

The data was screened for univariate outliers. The rate of return of questionnaires for this study was calculated as follows;

Total number of questionnaires administered = 306.

Total number of questionnaires returned= 293.

Therefore, return rate is = 293⁄306 * 100 = **95.75%**

Of the returned questionnaire, there were neither outliers nor missing values. Hence the analysis of the study will be based on a total of 294 questionnaires.

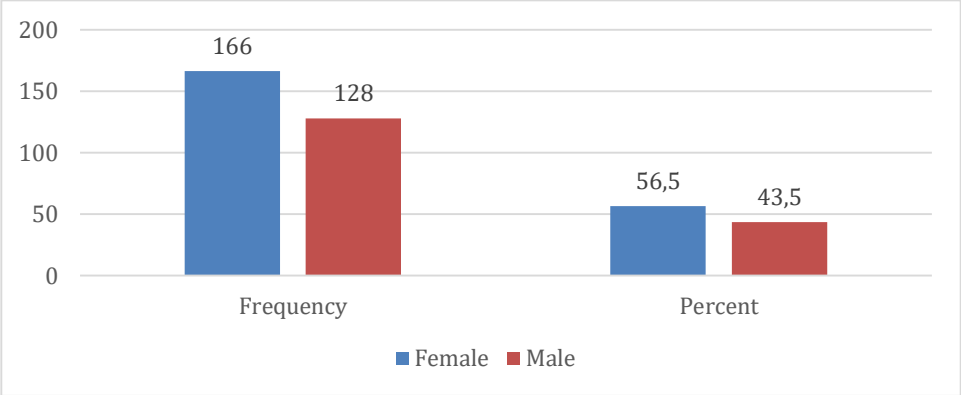
Demographic characteristics

Table 6: Gender Distribution of Respondents

	Frequency	Percent
Female	166	56.5
Male	128	43.5
Total	294	100.0

In this study, a sample of 294 respondents was used. The table represents the sex distribution of respondents. According to the table, 166 of the respondents are female, while 128 of the respondents are male, making a percentage of 56.5 and 43.5, respectively. This variation is due to the fact that there are more females than males in the sample schools. This indicates that most teachers in secondary schools in Mfoundi division are females.

Figure 6: Gender Distribution of Respondents



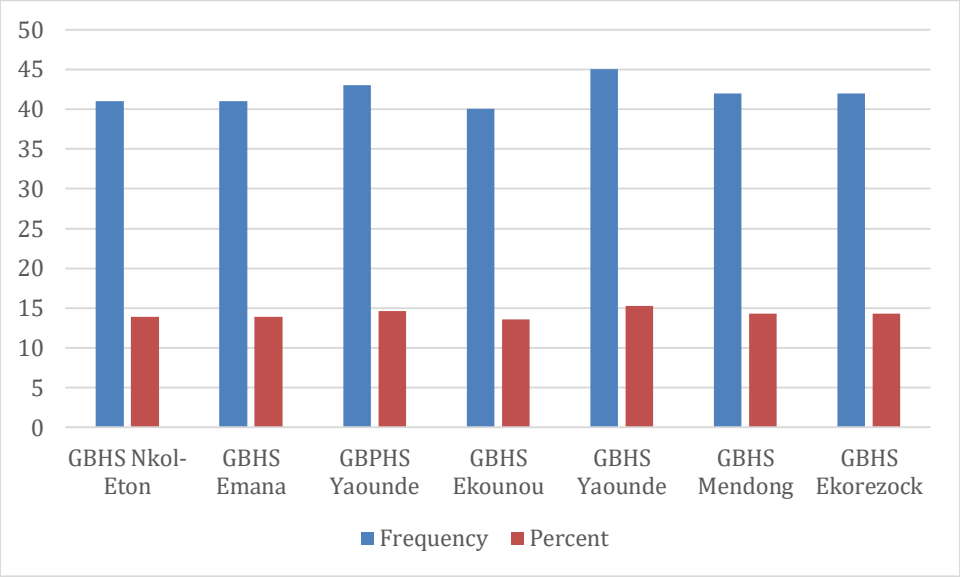
Name of School

Table 7: Distribution of respondents based on schools

	Frequency	Percent
GBHS Nkol-Eton	41	13.9
GBHS Emana	41	13.9
GBPHS Yaounde	43	14.6
GBHS Ekounou	40	13.6
GBHS Yaounde	45	15.3
GBHS Mendong	42	14.3
GBHS Ekorezock	42	14.3
Total	294	100.0

The above table represents the seven selected bilingual secondary schools in Mfoundi Division; questionnaires were distributed in these schools. Government bilingual high school Emana with a frequency of 41, giving a percentage of 13.9. Government bilingual high school Nkol-Eton with a frequency of 41, showing a percentage of 13. Government bilingual practising high school Yaounde with a frequency of 43 giving a percentage of 14. Government bilingual high school Ekounou with a frequency of 40, giving a percentage of 13.6, Government bilingual high school Yaounde with a frequency of 45, giving a percentage of 15.3. Government bilingual high school Mendong and Government bilingual high school Ekorezock both with a frequency of 43, giving a percentage of 14,3 each.

Figure 7: Distribution of Respondents Based on Name of Schools



Qualification

Table 8: Distribution of Respondents based on Qualification

	Frequency	Percent
DIPES I	216	73.4
DIPES II	78	26.6
Total	294	100.0

With respect to Qualification, more than half of the respondents (73.4%) are holders of DIPES I, and 26.6% are holders of DIPES II.

Figure 8: Distribution of Respondents Based on Professional Qualification

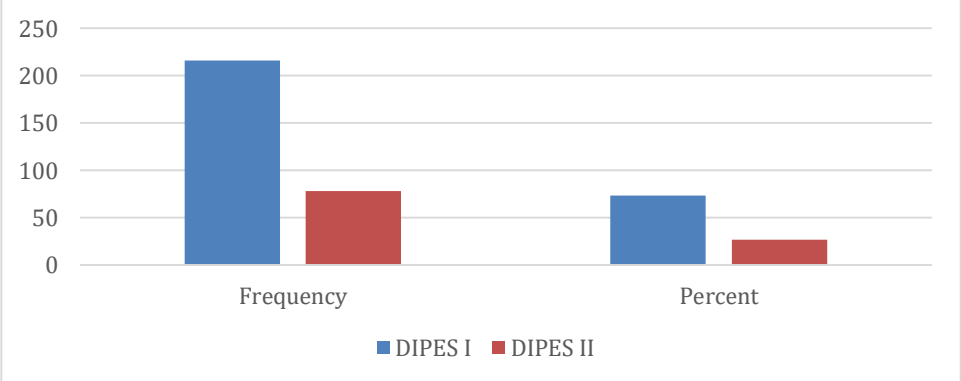
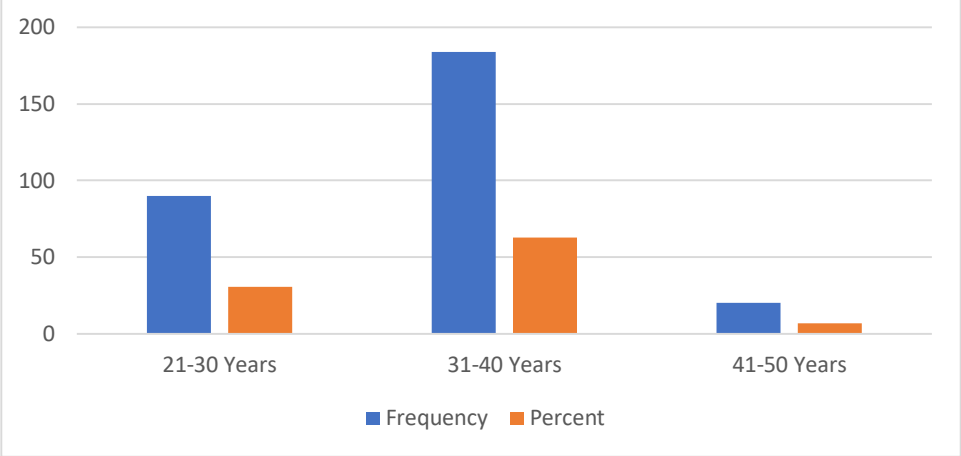


Table 9: Distribution of Respondents based on Age Group

	Frequency	Percent
21-30 Years	90	30.6
31-40 Years	184	62.6
41-50 Years	20	6.8
Total	294	100.0

The result shows that 30.6 % of the teachers are 21 to 30 years, the majority, 62.6% have ages between 31 to 40 years, and 6.8% of 41 to 50 years.

Figure 9: Distribution of Respondents Based on Age



Research Question One: How does teachers' training affect curriculum implementation?

In this research question, four extensive themes emerged from the analysis of data collected through interviews with the participating teachers.

The four emerged themes consist of:

- Theme I – Situation of inclusive education at present
- Theme II – Teachers' expertise and proficiency
- Theme III – Teachers' direct experience
- Theme IV – Teachers' recommendations for future teacher training towards inclusive education

Presentation of the results

The results presented in this study are meant to represent the views of teachers and other relevant aspects of teacher training towards inclusive education on curriculum implementation in public secondary schools in Cameroon. Four teachers who agreed to participate voluntarily would be referred to P1, P2, P3, and P4 as their pseudonyms with no relation to any order or significance throughout the study. All four of them aged from 30 – 45 years old. They all underwent a three-year teacher education in geography and chemistry.

Theme I: Situation of inclusive education at present

Here, four teachers expressed their opinions through discussions of one sub-themes in relation to the current circumstance of inclusion. The sub-themes were the importance of inclusive education.

Importance of inclusive education

Three participants mentioned the existence of children with special needs within Cameroon education system and their need to develop themselves as reasons teachers should know about inclusive education. They further pointed out that teachers were supposed to know about the background of this group of students so that they would be able to provide education that matched the needs of the students:

> *Teachers should be able to teach them properly and suitably, in response to their needs, to support and help them to improve their development. (P2)*

One of these three participants referred to a law which came out in order to promote, help and provide opportunities to all students with special needs that they must be able to study if they wanted to. He further explained that the chance for them to be included in the education system was highly increased;

> *There was a subject about special needs children, and our teachers during the pre-service education taught us within the curriculum of teacher education back then. (P3)*

While another participant honestly revealed that he knew nothing about inclusive education and children with special needs during the two years of his teacher education.

Theme II: Teachers' expertise and proficiency

There were two sub-themes discussed by all participants under this broad theme which included knowledge and skills in preparing teachers for teaching in inclusive classrooms, continuing professional development for teachers and Usage and application of knowledge and skills gained through teacher training

Knowledge and skills in preparing teachers for teaching in inclusive classrooms

All teachers unanimously reported an insufficiency of knowledge and skills taught during their teacher education and pre-service teacher training to teach in inclusive classrooms. Three out of four teachers revealed that throughout their two-year program in teacher training, they had only one subject, which roughly introduced them to children with special needs, special education, and/or inclusive education. There was no deep enough knowledge and skills gained through pre-service teacher training from their views. One of the three said that

> *...And just like an introduction only. I mean, no deep and enriched knowledge is gained, unlike other teachers who directly graduated from that field. I just know a bit about what inclusive education is. (P3)*

While the other teacher genuinely stated that no module or subject was taught about children with special needs, special education, and/or inclusive education back then. This teacher further explained that he knew nothing about children with special needs and inclusive education until he did his teaching practice for the last year of his teacher education:

> *That was when I knew about it and the inclusive education where students with special needs learned together with regular students in the same classroom. (P1)*

In addition, when they were asked whether they gained any knowledge in relation to teaching and learning methods or strategies, inclusive classroom management, assessment and education provision or individualized education plan through their pre-service teacher training in preparing them to teach under inclusive setting, three participants who undertook one subject

within the curriculum provided similar answers that they did learn something in relation to such knowledge but it was very little and they did not feel that they were fully equipped with just this one subject. However, when it came to academic knowledge regarding their fields of studies which were Geography and Chemistry, all four participants believed that they gained sufficient knowledge through pre-service teacher education and training in order to teach all students.

Continuing professional development for teachers

According to three teachers, one of the in-service trainings they must attend was 'assistant teacher training'. They said it was a compulsory part of their professional development and intensive training for all newly qualified government teachers within their first two years of employment. They further explained that the contents provided and taught in training were related to general principles, laws, ethics, and moralities of the teaching profession, rather than academic knowledge and skills in relation to teaching in practice. One teacher said that this in-service teacher training was very helpful since he was just a fresh graduate when he became qualified, so he gained some useful knowledge and information through it. While another teacher asserted that

> *There is training for intensive preparation which helps develop the spirit of being a teacher, makes me love my career better, and enables me to take care of students better. (P4)*

Several other pieces of training were mentioned through all four participants, such as general pedagogy (P2, P4), educational psychology (P2, P4), educational technology (P3), subject-specific training (P1, P4) and school visits (P3). They all admitted that most of the in-service teacher trainings they received up to this point did not have much involvement with children with special needs or teaching in inclusive classrooms. However, when they were questioned whether they gained any knowledge through those in-service teacher training, they answered likewise that they definitely gained some new knowledge, but it was not relatively beneficial or suitable towards their students in inclusive classrooms.

Usage and application of knowledge and skills gained through teacher training

In terms of knowledge and skills gained through in-service teacher training, most of the participating teachers reported that they could hardly use or apply things they learned from the

in-service training they received to their inclusive classrooms. They explained that the reason for this was that knowledge gained during in-service was not directly related to their subject:

> *I think it is useful but do not think that the students can take it yet because the knowledge that I gained through this training was at the higher-level students. ... (P3)*

> *...It is because the training is more general than specific, which take some time to try or do. And it was more about science, did not have much to do with chemistry. (P2)*

When the same question was asked, but this time was for pre-service teacher training, all four participants agreeably shared their views that what they learned back during their pre-service training was mainly theoretical knowledge. Though one teacher revealed that role-play activities he did with his classmates back in those days would be helpful somehow when solving the problem in practice and another teacher asserted that teaching practice helped her greatly when teaching in the classroom, similar responses were generally reported by four of them that things they learned from pre-service teacher training scarcely prepared and assisted them to teach students with special needs in inclusive classrooms and they had to adjust teaching and learning strategies themselves without prior adequate skills and knowledge.

Theme III: Teachers' direct experience

In here, four teachers discussed how direct experience with children with special needs they formerly gained could positively impact how they taught in the classroom and how they perceived and comprehended children with special needs as well as inclusive education.

Influence of direct experience in relation to teaching in practice

Three out of four participating teachers mutually identified that direct experience with children with special needs they had during their teaching practice was beneficial and advantageous when it came to teaching in inclusive classrooms in practice. They further pointed out that such an experience also helped and assisted them in adapting themselves when working professionally. While another participating teacher referred back to her work experience as her

first direct contact with children with special needs since she did not get to teach or meet with this group of children during her teaching practice. She remarked that

> *There are times when you cannot say anything just by looking whether they have any special needs since some of them look typical just like others. Once you have direct contact with them and to teach them that is when you realize that they have impairments or disabilities. (P4)*

All four participants confirmed that having had direct experience within an actual environment was very important and helpful since theoretical knowledge did not help much when teaching in practice.

Influence of direct experience on teachers' attitudes towards children with special needs and inclusion

Each participating teacher similarly reported that direct experience they previously had during their teaching practice considerably contributed to how they perceived children with special needs and when they taught them within an inclusive setting. One of the participating teachers expressed that

> *Before, I thought that children with special needs were kind of scary, just like mentally ill. After I got to teach them during my teaching practice, I found them very cute and pitiful. And I believe that they have potential to improve themselves. (P2)*

While another teacher shared his concern about teaching this group of students that

> *I was worried before. I was afraid about what I should do to make them understand. But after my teaching practice, I realized that it was easy to teach in an inclusive classroom (P3)*

Likewise, some related comments were made by another two teachers:

> *After some time, I started to learn from them and try to understand them, why they could not do it. And I have become calmer through time and tried to adjust myself. (P4)*

> *Having had direct experience, I know how they are like and I am not scared anymore when I have to teach them now because I have been familiar with them. (P1)*

Ultimately, all four teachers revealed that their attitudes were very much improved after directly teaching and experiencing with children with special needs through either teaching practice or previous work. Half of the participating teachers firmly stated that their attitudes became even more positive after working for some time. At this point, four of them also found that these children were actually cute (P2, P4), obedient (P1, P3), and hard-working (P2).

Theme IV: Teachers' recommendations for future teacher training towards inclusive education

Recommendations that all four participating teachers mentioned within this broad theme could be divided into two sub-themes: teachers' recommendations for pre-service teacher training and education and for in-service teacher training.

Teachers' recommendations for pre-service teacher training and education

Three out of four teachers who did take one subject concerning children with special needs, inclusive education, and/or special education during their pre-service revealed that this subject did not provide sufficient knowledge and skills to prepare them to teach in an inclusive classroom. They felt that they were not well-prepared how to teach students with special needs and manage such a classroom. Therefore, they suggested that at least one more subject should be added to the teacher education curriculum to provide deeper knowledge about inclusive education and how to teach students with special needs in the inclusive classroom.

While another teacher who did not get to take any subject in relation to inclusive education, children with special needs and/or special education remarked that

> *In Cameroon, learners with special needs are not seen as much important as it should be so teachers training program do not cover or include children with special needs module within its curriculum. (P1)*

He additionally expressed his thought that knowing about teaching and learning management within an inclusive classroom would enable and lead him to the direction of successful inclusive teaching in practice.

Teachers' recommendations for in-service teacher training

All four teachers mentioned that there was a lack of in-service teacher training in relation to inclusive education or children with special needs. One teacher clearly made her point that

> *I think it is not sufficient and more training should be provided in schools with inclusive classrooms, and the training should be provided yearly. (P4)*

This teacher further clarified her recommendation concerning future in-service teacher training towards inclusion that

> *...To all teachers who teach in inclusive classrooms or parallel classrooms should receive such training so that they can use knowledge from training to develop these students. (P4)*

All four participating teachers suggested that additional training about children with special needs should be arranged and given. Two of them brought up inclusive classroom management as one of their proposals for future training. They also recommended training about teaching and learning strategies that could be used within an inclusive classroom was also recommended by two teachers.

The Use of Teaching Methods

Twelve items were designed in the questionnaire to respond to this section (seven from the questionnaire and five from the observation checklist). All seven items designed to measure respondents' views on the use of teaching methods have a mean above 2.5, which is the cuff of mean.

Table 10: Respondent's view on the use of teaching methods

No.	Items	SA		A		D		SD		Mean	St. D
		f	%	f	%	f	%	f	%		
1.	Textbooks are inclusive in nature	32	10.9	214	72.8	48	16.3			2.95	0.51968
2.	Workbooks are designed for diverse learners	76	25.9	78	26.5	128	43.5	12	4.1	2.74	0.89051
3.	Use Posters and other displays material	50	17.0	128	43.5	108	36.7	8	2.7	2.75	0.76478
4.	Use Model materials in teaching	62	21.1	98	33.3	84	28.6	50	17.0	2.50	1.00404
5.	Make use of Visual aids in teaching	54	18.4	102	34.7	110	37.4	28	9.5	2.62	0.89239

6.	Use audio-visual aid in teaching.	70	23.8	66	22.4	116	39.5	42	14.3	2.56	1.00598
7.	Use games such as card games, board games and classroom games for teaching.	34	11.6	138	46.9	104	35.4	18	6.1	2.64	0.76569

It shows that only 83.7% of the teachers generally agree that textbooks are inclusive, supported by a mean of 2.95. 52.4% agreed that workbooks are designed to respect learners' diversity, supported by a mean of 2.74. 60.5% agreed they use posters and other display materials in their teaching, supported by a mean of 2.75. 54.4% use models as instructional materials in teaching, supported by a mean of 2.5. 53.1% of the teachers use visual aids in teaching, and 55.2% use audio-visual aid, supported by a mean of 2.62 and 2.56, respectively. Finally, 58.5% agreed they use card games, board games and classroom games for teaching, supported by a mean of 2.64.

Table 11: Respondent's view on the use of teaching methods from the Checklist

No	Items	F	%
8.	Availability of Posters and other displays material	6	60
9.	Models and audio material	6	60
10.	Textbooks and other readings provide differing cultural/gender/race perspectives.	6	60
11.	Use visual aid in teaching.	6	60
12.	Use games such as classroom games for teaching	6	60

The checklist affirmed the questionnaire responses indicating that more than half of the teachers' teaching methods align with inclusive education best practices.

The Use of Teaching Methods

Thirteen items were designed in the questionnaire to respond to this section (eight from the questionnaire and five from the observation checklist). All seven items designed to measure respondents' views on the use of teaching methods have a mean above 2.5, which is the cuff of mean.

It shows that only 76.2% of the teachers generally agree they keep activities and instructions short, clear and engaging, supported by a mean of 2.83. 61.9% agreed they provide students

with the needed time for all class activities, supported by a mean of 2.80. 55.8.5% agreed they gain students' attention when giving instruction, supported by a mean of 2.70. 63.9% provided verbal instruction, supported by a mean of 2.82. 58.5% of the teachers offered multiple formats of visual instruction, and 45.6% provided multiple formats (verbal and visual instruction), supported by a mean of 2.61 and 2.48, respectively. Only 43.6% of the respondents reduce distractions through careful classroom arrangement, supported by a mean of 2.37. Finally, 52.4% agreed they provide lots of opportunities for students to engage in collaborative learning, supported by a mean of 2.57.

Table 12: Respondent's view on the use of Teaching Methods

No.	Items	SA		A		D		SD		Mean	St. D
		f	%	f	%	f	%	f	%		
1.	Keep activities and instructions short, clear and engaging.	38	12.9	186	63.3	52	17.7	18	6.1	2.83	0.72379
2.	Provide students with the time they need	64	21.8	118	40.1	100	34.0	12	4.1	2.80	0.82569
3.	Gain student's attention when giving instruction	64	21.8	100	34.0	106	36.1	24	8.2	2.70	0.90212
4.	Instruction provided in verbal instruction	70	23.8	118	40.1	88	29.9	18	6.1	2.82	0.86668
5.	Instruction provided in multiple formats, visual instruction	40	13.6	132	44.9	88	29.9	34	11.6	2.61	0.86303
6.	Instruction provided in multiple formats (verbal and visual instruction)	30	10.2	104	35.4	136	46.3	24	8.2	2.48	0.78669
7.	Reduce distractions through the careful arrangement of the classroom	42	14.3	86	29.3	106	36.1	60	20.4	2.37	0.96499
8.	Provide lots of opportunities for students to engage in collaborative learning.	42	14.3	112	38.1	110	37.4	30	10.2	2.57	0.85914

Table 13: Respondent's view on the use of Teaching methods from the Checklist

No	Items	f	%
9.	Inclusive language is used to ensure stereotyping is not present.	7	70
10.	Opportunities are provided for students' experiences, voices, work and learning to be shared.	6	60
11.	Students work with others and mixed groups for diversity.	6	60
12.	Teaching methods and learning activities are varied to promote and support different learning styles/preferences.	6	60
13.	Expression of diverse perspectives and interpretations is encouraged.	6	60

The checklist confirmed the questionnaire responses indicating that more than half of the teachers' teaching methods align with inclusive education best practices.

Assessment Methods

Ten items were designed in the questionnaire to respond to this section (five from the questionnaire and five from the observation checklist). All four out of the five questionnaire items designed to measure respondents' views on the use of Assessment Methods have a mean above 2.5, which is the cuff of mean.

Table 14: Respondent's view on the use of Assessment Methods

No.	Items	SA		A		D		SD		mean	St. D
		f	%	f	%	f	%	f	%		
1.	Use more formative assessments and make completion mandatory.	24	8.2	164	55.8	68	23.1	38	12.9	2.59	0.81584
2.	Balance low in-class activities stakes and high formal with grade stake assessments.	24	8.2	164	55.8	94	32.0	12	4.1	2.68	0.68116
3.	Make sure you are assessing the learning you are aiming for.	0	0	168	57.1	100	34.0	26	8.8	2.48	0.65425
4.	Provide descriptive, forward-looking feedback.	2	0.7	194	66.0	92	31.3	06	2.0	2.65	0.53099
5.	Consider assessment activities as learning activities.	12	4.1	156	53.1	102	34.7	24	8.2	2.53	0.70402

It shows that only 64% of the teachers generally agree they use more formative assessments and make completion mandatory, supported by a mean of 2.59. Similarly, 64% agreed they balance low in-class activities stakes and high formal with grade stake assessments, supported by a mean of 2.68. 57.1% agreed they ensure they assess the learning they aim for, supported by a mean of 2.48. 66.7% provide descriptive, forward-looking feedback, supported by a mean of 2.65. Finally, 57.2% agreed they consider assessment activities learning activities, supported by a mean of 2.53.

Table 15: Respondent's view on the use of Assessment Methods from the Checklist

No	Items	f	%
6.	Balance low in-class activities stakes and high formal with grade stake assessments	5	50
7.	Use more formative assessments and make completion mandatory	6	60
8.	Alternate and diverse options for assessing student learning have been included.	6	60
9.	Provide descriptive, forward-looking feedback.	6	60
10.	Balance low in-class activities stakes and high formal with grade stake assessments	6	60

The check list affirmed the questionnaire responses indicating that more than half of the teachers' teaching methods align with inclusive education best practices.

Curriculum Implementation

Ten items were designed in the questionnaire to respond to this section. All ten items designed to measure respondents' views on Curriculum Implementation **have** a mean above 2.5, which is the cuff of mean.

The table below shows that only 94% of the teachers provided creative ways to problems and teamwork in teaching and learning, supported by a mean of 3.37. 95.9% agreed they identified barriers to student learning, supported by a mean of 3.24. 89.1% encourage learners to recognize their unique strengths, supported by a mean of 3.18. 92.5% design lessons to help all learners achieve their highest potential, supported by a mean of 3.25.

Table 16: Respondent's view on Curriculum Implementation

No.	**Items**	**SA**		**A**		**D**		**SD**		**mean**	**St. D**
		F	**%**	**f**	**%**	**f**	**%**	**f**	**%**		
1.	Teachers provided with creative ways to problems and teamwork in teaching and learning	86	29.3	202	68.7	6	2.0	o	o	3.27	.48959
2.	Identify barriers to students learning	82	27.9	200	68.0	12	4.1	o	o	3.24	.51375
3.	Encourage learners to recognize their unique strength	86	29.3	176	59.9	32	10.9	o	o	3.18	.60735
4.	Design lessons to help all learners achieve their highest potential	96	32.7	176	59.9	22	7.5	o	o	3.25	.58238
5.	Plan lessons to meet student's needs	90	30.6	184	62.6	20	6.8	o	o	3.24	.56440

6.	Plan activities that will not be disadvantageous to others	80	27.2	188	63.9	26	8.8	o	o	3.18	.57265
7.	Use different teaching methods	88	29.9	150	51.0	56	19.0	o	o	3.11	.69252
8.	Use different teaching/learning materials	102	34.7	164	55.8	28	9.5	o	o	3.25	.61654
9.	Provide support during teaching/learning	108	36.7	132	44.9	54	18.4	o	o	3.18	.72045
10.	Design assessment to be receptive and support all learners to excel	104	35.4	104	35.4	56	19.0	30	10.2	2.96	.97671

93.2% of the teachers plan lessons to meet students' needs and 91.2% plan activities that are not disadvantageous to others, supported by a mean of 3.24 and 3.18, respectively. Finally, 70.8% designed receptive assessments that help all learners to excel, supported by a mean of 2.96.

Correlation analysis

To test the previously established hypotheses with the help of simple linear regression analyses, Saunders et al. (2016) state that the collected data has to meet the precondition that is concerned with the linearity of the relationship between the separate IVs and the DV. Therefore, in the first instance, the researchers have produced scatterplots of the relationships between the different IVs, namely teaching materials, teaching methods, and assessment methods towards inclusive education practising as DV. Looking at the various scatterplots, it can be detected that the relationship between the different IVs and the DV in all cases is linear.

Table 17: Correlations among variables

	Teaching Materials	Teaching Methods	Assessment Methods	Curriculum Implementation
Teaching Materials				
Teaching Methods	.813**			
Assessment Methods	.699**	.762**		
Curriculum Implementation	.702**	.761**	.695**	
Mean	2.69	2.65	2.59	3.19
SD	.67514	.65605	.47618	.50813
N	294	294	294	294

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

To be more precise and thoroughly test the assumption of the linearity and strengths of relationships between the separate IVs and the DV, the researchers have conducted a correlation analysis whose main results are displayed in Table xx. Outcomes show that teaching materials, teaching methods, and assessment methods significantly correlate with Curriculum Implementation.

Concerning the strength of the relationship, the IVs of the nature of teaching materials and teaching methods (Pearson's r (291) = .813, $p < .01$), teaching materials and assessment methods, (Pearson's r (291) = .699, $p < .01$), teaching methods, and assessment methods (Pearson's r (291) = .762, $p < .01$. Hence, from the correlation analysis, it can be concluded that all three measured IVs are significantly correlated. Moreover, due to the confirmed linearity of relationships between the separate IVs and the DV, the precondition to run regression analyses to test the previously developed hypotheses is met (Saunders et al., 2016).

Regression Analysis

Since inclusive education is the intersection of the contributing constructs, a standard simple regression was performed when all the other variables were considered to identify which independent variable was the largest predictor of curriculum implementation. Curriculum implementation was the dependent variable, and teaching materials, teaching methods, and assessment methods were the independent variables.

The various assumptions underlying simple regression were examined. The correlations between the independent and dependent variables were above 0.2 and thus were acceptable for the regression analysis (Tabachnick & Fidell, 2007). Moreover, there were not very high correlations ($r > 0.9$) (Field, 2009) between the independent variables. For further evaluation to check multicollinearity, which indicates a perfect linear relationship between two or more of the independent variables, the tolerance and variance inflation factor (VIF) values were examined. All the tolerance values were above 0.1, and the VIF values were less than 10, thus, the data set did not indicate multicollinearity (Field, 2009; Tabachnick & Fidell, 2007).

The Mahalanobis distance was used to check for outliers. Mahalanobis distance "is the distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables" (Tabachnick & Fidell, 2007, p. 74). It reveals

cases that lie at a distance from the other cases, and such cases are considered outliers. Mahalanobis distance is evaluated using chi-square distribution. "Mahalanobis distance is distributed as a chi-square (X^2) variable, with degrees of freedom equal to the number of independent variables" (Tabachnick & Fidell, 2007, p. 166). In order to detect which cases are multivariate outliers, the critical X^2 value of the number of degrees of freedom of the independent variables is compared with the Mahalanobis distance of the cases (Tabachnick & Fidell, 2007). Any case whose Mahalanobis distance value is greater than the critical X^2 is considered an outlier. Tabachnick and Fidell (2007) have produced a table of critical X^2 values with which researchers can compare their Mahalanobis distance values. The data cases of the study were compared with this critical X^2 value. No case with critical values higher than what was prescribed by Tabachnick and Fidell (2007) was detected.

Normality of the data set was checked with the Normal Probability Plot and the Scatterplot of the Standardised Residuals. The Normality Probability Plot produced a fairly straight diagonal plot, indicating that the points did not deviate from normality. Again, the scatterplot produced a rectangular-shaped distribution of the residuals, with most points concentrated around zero (0). This indicated that the data was fairly normally distributed. SPSS produces unusual cases in a table called Case-wise Diagnostics for standard multiple regression. Pallant (2005) alerted that the Casewise Diagnostics table has information on cases that have values above 3.0 or below -3.0 as their standardised residuals and that in normally distributed data, such cases should not be more than 1% of the total cases. In order to check if such cases have an effect on the results, one should have a look at the Cook's distance value. If the Cook's distance is more than 1, then there is cause for concern (Field, 2009; Pallant, 2005; Tabachnick & Fidell, 2007). Though Casewise Diagnostics produced a case with a standardised residual above 3 (in this case, it was 5.655), Cook's distance produced a maximum value of 0.59. Thus, though the standardised residual is above 3, the maximum Cook's distance value was less than 1; therefore, this case can be included in the regression.

The standard regression with each of the three independent predictors (teaching materials, teaching methods, and assessment methods) to predict curriculum implementation was used to verify each research hypothesis. The adjusted R^2 was reported because Tabachnick and Fidell (2007) recommended that the R square tends to overestimate its true value in the population

when the sample size is small and that the adjusted R square corrects the value of R square and thus produces a better predictor of the true population value.

Hypotheses Testing

H_{O1}: Teaching materials have no statically significant effect on curriculum implementation at p= .05.

Regression was carried out to ascertain the extent to which teaching materials scores predict curriculum implementation.

Table 18: Model Summary for the Use of teaching materials

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.702[a]	.492	.491	.36261

a. Predictors: (Constant), Teaching Materials

The results showed that there was a strong positive linear relationship between teaching materials scores and curriculum implementation, which was confirmed with a Pearson's correlation coefficient of $r = .702$. The regression model predicted 49.1% of the variance. The model was a good fit for the data (F (1, 292 = 283.257, $p < .000$).

Table 19: ANOVA for the Use of teaching materials

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.257	1	37.257	283.359	.000[b]
	Residual	38.394	292	.131		
	Total	75.651	293			

a. Dependent Variable: Curriculum Implementation
b. Predictors: (Constant), Teaching Materials

The linear regression F test has the null hypothesis that teaching materials has no statically significant effect on curriculum implementation at p=.05. In other words, $R^2 = 0$, with F (1, 293) = 283.359, p= .000, the test is highly significant. Thus, we can assume that there is a statistically significant relationship between the use of teaching materials and curriculum implementation in the context of inclusive education**.**

Table 20: Coefficients[a] Summary for the Use of teaching materials

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.766	.087		20.287	.000
	Teaching Materials	.528	.031	.702	16.833	.000

a. Dependent Variable: Curriculum Implementation

The regression results showed a significant relationship between the use of teaching materials and curriculum implementation in the context of inclusive education scores ($t = 16.833$, $p < 0.000$). The slope coefficient for the use of teaching materials is .528, so curriculum implementation in the context of inclusive education increases by a factor of 1 unit.

H_{O2}: Teaching methods have no statically significant effect on curriculum implementation at p= .05.

Regression was carried out to ascertain the extent to which teaching methods scores predict curriculum implementation.

Table 21: Model Summary for the Use of Teaching Methods

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761[a]	.579	.578	.33024

a. Predictors: (Constant), Teaching Methods

The results showed that there was a strong positive linear relationship between teaching methods scores and curriculum implementation, which was confirmed with a Pearson's correlation coefficient of $r = .761$. The regression model predicted 57.8% of the variance. The model was a good fit for the data (F (1, 292 = 401.658, $p < .000$).

Table 22: ANOVA[a] for the Use of Teaching Methods

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.805	1	43.805	401.658	.000[b]
	Residual	31.846	292	.109		
	Total	75.651	293			

a. Dependent Variable: Curriculum Implementation
b. Predictors: (Constant), Teaching Methods

The linear regression F test has the null hypothesis that teaching materials have no statically significant effect on curriculum implementation at p=.05. In other words, $R^2 = 0$, with F (1,

293) = 401.658, p= .000, the test is highly significant. Thus, we can assume that there is a statistically significant relationship between the use of teaching methods and curriculum implementation in the context of inclusive education**.**

Table 23: Coefficients[a] for the Use of Teaching Methods

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.628	.080		20.325	.000
	Teaching Methods	.589	.029	.761	20.041	.000

a. Dependent Variable : Curriculum Implementation

The regression results showed a significant relationship between the use of teaching methods and curriculum implementation in the context of inclusive education scores (t = 20.041, p < 0.000). The slope coefficient for teaching methods is .589, so curriculum implementation in the context of inclusive education increases by a factor of 1 unit.

H_{O3}: Assessment Methods have no statically significant effect on curriculum implementation at p= .05.

Regression was carried out to ascertain the extent to which assessment methods scores predict curriculum implementation.

Table 24: Model Summary for the Use of Assessment Methods

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.695[a]	.483	.481	.36596

a. Predictors: (Constant), Assessment Methods

The results showed a strong positive linear relationship between assessment methods scores and curriculum implementation, which was confirmed with a Pearson's correlation coefficient of *r* = .695. The regression model predicted 48.1% of the variance. The model was a good fit for the data (*F* (1, 292 = 272.872, *p* < .000).

Table 25: ANOVA[a] for the Use of Assessment Methods

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.545	1	36.545	272.872	.000[b]
	Residual	39.106	292	.134		
	Total	75.651	293			

a. Dependent Variable: Curriculum Implementation
b. Predictors: (Constant), Assessment Methods

The linear regression F test has the null hypothesis that teaching materials have no statically significant effect on curriculum implementation at p=.05. In other words, R^2= 0, with F (1, 293) = 272.872, p= .000, the test is highly significant. Thus, we can assume that there is a statistically significant relationship between the use of assessment methods and curriculum implementation in the context of inclusive education**.**

Table 26: Coefficients[a] for the Use of Assessment Methods

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.268	.118		10.732	.000
	Assessment Methods	.742	.045	.695	16.519	.000

a. Dependent Variable : Curriculum Implementation

The regression results showed a significant relationship between the use of assessment methods and curriculum implementation in the context of inclusive education scores (t = 16.519, p < 0.000). The slope coefficient for the use of assessment methods is .742, so curriculum implementation in the context of inclusive education increases by a factor of 1 unit.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Discussions

Teachers' acknowledgement towards inclusive education through teacher training and education: The findings of this study showed that several complex issues still revolved around teacher training towards inclusion in Cameroon. The first one to be discussed here is lack of inclusive training in pre-service teacher training and education. Such lack is related to the absence of inclusion concerning curricula modules and other relevant details offered through pre-service training. However, most teachers who participated in this research project exhibited their understanding of the importance of inclusive education.

Nevertheless, in relation to aspects of equity towards diversity within the learning environment, participants from this study displayed their recognition of such matters as they acknowledged that children with special needs should be able to receive and access education on an equal basis as others. Additionally, they pointed out that it was the teachers' responsibility to provide those children with good quality educational services that would meet their needs and help them progress on their development.

Even though the findings of the study by Kantavong, Nethanomsak, & Luang-ungkool (2012) revealed that subject matters regarding such aspects, i.e., human rights and inclusion of marginal and underprivileged groups were not offered as individual modules and they were merely mentioned in some other subjects as a lightly integrated topic within the curricula of pre-service teacher training and education, the participants from this unit of the study were still able to demonstrate such recognition as well as display a sense of being responsible for quality education for their students, especially the ones with special needs. This might signify that teachers, at least from this research project, are able to not only acknowledge the importance of equity matter towards diversity within the classroom but they are also able to develop their sense of responsibility as trustworthy educators regardless of the amount and frequency of those mentioned subject matters they have learned and obtained during their pre-service teacher training and education.

This current study's finding seemed to go hand in hand with Bentley-Williams & Morgan (2013) as it was disclosed that their participants also recognized that 'all' students had the right to be given and provided appropriate education and it was the educators' duty to support these children. However, such awareness of participants of Bentley-Williams & Morgan's study was reported to be significantly expanding through their reflexive learning after the completion of inclusive education units that were previously taught.

Expertise and proficiency of teachers: Next issue is a lack of teachers' expertise and proficiency for teaching in an inclusive classroom or setting. In terms of knowledge and skills gained through pre-service teacher training and education for inclusive teaching, three out of four participants from this research project stated that they studied only one subject in relation to children with special needs and inclusive education and/or special education while another participant did not learn anything about this group of children and their education throughout his pre-service training. They accordingly felt that they were not well-equipped and fully confident to teach those children in an inclusive classroom, especially when they started their teaching profession at the beginning. However, some of the participating teachers argued that the direct experience with children with special needs they gained while undertaking teaching practice during the last year of their pre-service training was helpful and supportive when it came to teaching in practice afterwards, regardless of no further knowledge and skills taught throughout that year.

According to the Global Monitoring Report – Education for All (2015), achievement and Challenges (United Nations Educational, Scientific and Cultural Organization, 2015) – it was reported that there were less than one-third of teachers in most developing countries were well-trained to work with students with physical and learning disabilities. Such findings were likewise identified through two other studies by Ahsan, Sharma, & Deppeler (2012) and Sukbunpant, Arthur-Kelly, & Dempsey (2013).

In terms of in-service teacher training, though all participating teachers agreed that they did learn and gain some new knowledge through additional training they received while working at the school, they disclosed that there was still an inadequacy of expertise and skills with respect to children with special needs and teaching within an inclusive setting. Such an ongoing

issue seemed to appear not only within the primary and secondary level but also at the preschool level, according to a study by Sukbunpant, Arthur-Kelly, & Dempsey (2013).

Teachers' direct experience: Then there is an issue concerning teachers' direct experience with children with special needs. Though there was a minor difference among participating teachers in terms of how each of them gained such an experience, all four teachers jointly reported that having had direct experience with special needs children in the past was definitely an advantage when it came to the matter of teaching in an inclusive classroom in practice. Such importance of direct experience with this group of students was likewise pointed out, especially during teaching practice or practicum programs (Ahsan, Sharma, & Deppeler, 2012).

Findings from Ahsan, Sharma, & Deppeler's study (2012) additionally revealed that most of their participants believed that lacking or not having any adequate experience in teaching and learning within a diverse classroom during teaching practice or practicum was a primary barrier towards preparation for pre-service teachers. This appears to be in harmony with what was confirmed by all four participating teachers of this current study that experiencing directly with those children within an actual environment was very much useful and beneficial for when they had to teach in practice.

Teaching Material and inclusive education practices on curriculum implementation

Results from this study show that teaching materials have a statistically significant effect on inclusive education practices on curriculum implementation. Educational materials are the tools that enrich the learning process and make learning concrete. Educational materials have positive effects on making education effective. Teaching materials are elements that teachers can not overlook, such as: facilitating the process of learning and providing permanence to what is learned (Øúman, 2015). The materials that the classroom teachers use differ. Analysis indicated them to be: student books, worksheets, models, posters, etc. In recent years there have been some positive improvements regarding educational materials. However, these improvements are not enough for the students who need exceptional support and the teachers working with them. Inclusive education is used with the same meaning as placing the students who need special education with other students of the same age in the same classes (Sucuolu, 2016).

Including the students with disabilities and knowing how to treat them are important characteristics of an effective school, and in this regard, Ainscow (2018) indicated that an effective school has effective leadership and staff who are able to deal with all students and their needs, is optimistic that all the students can progress and develop their abilities toward successful achievement, has a willingness to support its staff by meeting their needs taking into account the curriculum, and ensuring that the curriculum meets all the students needs by effectively reviewing its programmes (teachers, curriculum, students' progress), frequently making sure there is progress in terms of the effective teacher. Successful teachers challenge the students' abilities by setting good quality tasks, providing students with opportunities to choose their tasks, varying learning strategies and providing facilities that contribute to student learning (Ainscow, 2016).

Educational materials are the tools that enrich the learning process and make learning concrete. The use of materials has been the basis for the equality of opportunities in the process of education. In other words, it provides the opportunity to present the educational environment, which is improved and enriched by the help of every kind of educational technology to all people in every part of the country and the world. As a result, everybody will have the chance to have a high-quality education. With the help of educational technology, equality of opportunity problems in our country can be prevented (Øúman, 2015).

Teaching methods and inclusive education practice on curriculum implementation

Teaching does not happen haphazardly; teachers apply specific procedures to teach. Results show that teaching methods have a statistically significant outcome on inclusive education practices and curriculum implementation. Traditional teaching styles could be used to enhance inclusion, but it requires a measure of flexibility and awareness to switch approaches in such a manner that the needs of all learners are responded to. In the past, teaching was regarded as a one-way interaction process between the teacher and the learner. By contrast, modern approaches to teaching emphasise two-way interaction in the sense that learners are not the passive recipients of knowledge but also have a contribution to make to their learning. Muijs

and Honka-silta et al., (2019) refer to the former approach as "direct instruction" and the latter as "interactive" teaching.

Assessment methods and inclusive education practices on curriculum implementation

Teachers are guided by school jurisdiction policies and procedures on student assessment and evaluation that provide continuous, fair and equitable student evaluation and reporting to parents or guardians (Alberta Education 2019). In an inclusive learning environment, assessment collects, synthesises and interprets data about each student's learning to aid the teacher's decision-making. Assessment informs a series of events that take place over time in the teaching–learning cycle. Each of these elements relies on best practices in assessment and careful analysis of the classroom contextual variables and student learning needs.

Assessment often creates concerns for students and parents that teachers have to address. These concerns can result from confusion regarding the purpose of an evaluation and how an evaluation will apply to all students in the classroom. It is essential to explain how treating all students the same or equally may not be fair. Fairness is about giving all students an equitable opportunity to demonstrate their learning. This may mean that some students will require adaptations or modifications to an assessment strategy to have a fair opportunity to demonstrate their understanding.

CONCLUSION

In an increasingly globalised and complex world, inclusive education can strengthen citizens' trust and sense of belonging and among citizens. Moreover, inclusive education can allow all children to learn about and accept each other's abilities, talents and needs. By fostering meaningful relationships and friendships, this process can strengthen social competencies while also building social cohesion (Council of Europe, 2015).

The range of economic and social effects that inclusive education can procure is wide and applies to very diverse groups of learners. Social inclusion is believed to be one of the positive outcomes of inclusive education (MacArthur, 2013; European Agency for Special Needs and Inclusive Education, 2018), both during children's school years and when they begin their adult lives. Moreover, a review by Ruijs and Peetsma (2009) shows that students with special

educational needs achieve academically better in inclusive settings than non-inclusive ones. Research also shows that attending and receiving support within inclusive education settings can increase the likelihood of enrolling in higher education for students with special needs (European Agency for Special Needs and Inclusive Education, 2018).

Recommendations for future teacher training towards inclusive education: The final issue to be conferred here concerns teachers' recommendations about teacher training. In respect of pre-service teacher training and education, majority of participating teachers of this current study expressed their views that, at least, one more subject or module should be added to the pre-service teacher education to provide them with more enriched knowledge about inclusive education as well as methods or strategies for teaching students with special needs within the inclusive classroom. While another teacher mentioned that to be able to learn and know about how to manage teaching and learning process in inclusive classroom would help him move towards the direction of a success in inclusion in practice. It was also strongly recommended by those teachers that direct experience with special needs students during pre-service teacher training and education should be given more attention due to the fact that such experience could considerably influence on their attitudes and teaching in practice as it was formerly discussed.

Engstrand & Roll-Pettersson (2014) consistently reported through their work that there was a significant relation between the number of credits earned in special education during pre-service teacher training and teachers' attitudes, especially towards children with autism and their inclusion. It was further asserted that teachers who previously took special education modules or programs during either pre-service or in-service teacher training and additionally worked on a regular basis with children with autism appeared to respond towards the inclusion of these children in a positive way (Engstrand & Roll-Pettersson, 2014).

Up to this point, it might be evidence enough to claim that there is an inadequacy in both pre-service and in-service teacher training in preparing and supporting teachers towards inclusion within the Cameroon context. Such issues do not solely occur in Cameroon but also in some other countries from other regions, such as the less developed countries, according to the

findings of several studies (Agbenyega & Klibthong, 2014; Malak, 2013; Sadioglu, Bilgin, Batu, & Oksal, 2013; Sukbunpant, Arthur-Kelly, & Dempsey, 2013; Vaillant, 2011).

A matter of this insufficiency in both types of teacher training is perceived as a significant problem not only at the national level among those countries but also at the international level as there is an emphasis on the improvement of quality education to ensure impartial and inclusive education for 'all' by providing educators and teachers empowerment, adequate training, and professional qualifications under efficient, well-supplied and successfully administered systems in the Incheon Declaration (United Nations Educational, Scientific and Cultural Organization, 2015).

Recommendation for Practice: Using materials in education eases the perception and learning of students at all levels. This is especially true for students who have difficulty in learning. The teacher should use the appropriate materials to make the learning process concrete, to practice and revise, and to increase the student's participation in the learning process. This situation helps inclusive learners to have observable and concrete learning during the process. The most important part of the Material in inclusive education is the selection and preparation of the Material. In this process, the teachers have to create solutions themselves. Factors such as the characteristics of the inclusive learner and the easiness or difficulty level of preparing a material are influential. It is important to analyse and evaluate the solutions the teachers create regarding materials preparation on implementation and sharing with the other partners in the field.

REFERENCE

Abramson, C. I. (2013). Problems of teaching the behaviorist perspective in the cognitive revolution. *Behavioral Sciences, 3*(1), 55–71.

Abt Associates (2016), A Summary of the Evidence on Inclusive Education, Abt Associates.

ADB [Asian Development Bank] (2010). *Strengthening inclusive education.* Manila: ADB.

Adebayo, A. S., & Ngwenya, K. (2015). Challenges in The Implementation of Inclusive Education At Elulakeni Cluster Primary Schools In Shiselweni District Of Swaziland. *European Scientific Journal*, 11(13), 1857 – 7881.

Agbenyega, J. S., & Klibthong, S. (2012). Transforming selves for inclusive practice: Experiences of early childhood preservice teachers. Australian Journal of Teacher Education, 37(5), 65-77.

Agbenyega, J. S., & Klibthong, S. (2014). Assessing Thai early childhood teachers' knowledge of inclusive education. International Journal of Inclusive Education, 18:12, 1247-1261.

Ahmmed, M., Sharma, U., & Deppeler, J. (2013). Impact of demographic variables and school support on teacher efficacy in inclusive classrooms in Bangladesh. *International Journal of Diversity in Education, 12(2), 1–14.*

Ahsan, M. T., Sharma, U., & Deppeler, J. M. (2012). Challenges to prepare pre-service teachers for inclusive education in Bangladesh: Beliefs of higher educational institutional heads. Asia Pacific Journal of Education, 32(2), 241-257.

Ainscow, M. (2019), "The UNESCO Salamanca Statement 25 years on Developing inclusive and equitable education systems, Discussion Paper", *Discussion paper prepared for the International Forum on inclusion and equity in education – every learner matter, Cali,* UNESCO, Cali,

Ainscow, M. (2020). Promoting Inclusion and Equity in Education: Lessons from International Experiences. Nordic Journal of Studies in Educational Policy, 6, 7-16.

Ainscow, M., & Messiou, K. (2018). Engaging with the views of students to promote inclusion in education. Journal of Educational Change, 19(1), 1e17.

AITSL. (2020). Inclusive education: Teaching students with disability. Retrieved. Australian Institute for Teaching and School Leadership.

Akpan, J. P. & Beard, L. A. (2016). Using constructivist teaching strategies to enhance academic outcomes of students with special needs. *Universal Journal of Educational Research, 4*(2), 392–398.

Al-Mousa, N. A. (2010). *The Experience of the Kingdom of Saudi Arabia in Including Students with Special Educational Needs in Public Schools: A Success Story*. Riyadh, Saudi Arabia: The Arab Bureau of Education for the Gulf States.

Al-Shammari, Z. (2019A). Using evidence-based behaviorism instructional strategies with effect size in inclusive elementary schools in Kuwait. *International Journal for Research in Education.*

Allday,R. A., Neilsen-Gatti, S. and Hudson, T. 2013. "Preparation for inclusion in teacher education pre-service curricula". *Teacher Education and Special Education, 36* (4): 298-311.

Almalki, N., and Abaoud, A. (2015). Association of children with disabilities experience in inclusion of children with multiple disabilities in pre- school public schools in Riyadh. *ICG J.* 4, 30–47.

Alnahdi, G. H., and Schwab, S. (2020). Inclusive education in Saudi Arabia and Germany: students' perception of school wellbeing, social inclusion, and academic self-concept. *Eur. J. Spec. Needs Educ.* 36, 1–14.

Alnahdi, G. H., Saloviita, T., and Elhadi, A. (2019). Inclusive education in Saudi Arabia and Finland: pre-service teachers' attitudes. *Support Learn.* 34, 71–85.

Alrayss, T., and Algmeay, W. (2016). Obstacles of the inclusion of deaf and hearing-impaired children in kindergarten from the perspective of their teachers in Saudi Arabia. *J. Spec. Educ. Rehabil.* 4, 8–38.

Alssissi, A. (2017). A Suggested Organizational Structure for General Education Schools Applicable to the System of Inclusion in the Medina City, Vol. 52 Scientific Publishing Council, Kuwait University, 299–341.

Altiraifi, A. (2019). *Advancing Economic Security for People With Disabilities*. Retrieved from https://www.americanprogress.org/article/advancing-economic-security-people-disabilities/ American Economic Association, pp. 210-240.

Amin, M. E. (2005). *Social science research*: *Conception, methodology & analysis*. Kampala, Makerere University Printery.

Amor, A. et al. (2018), “International perspectives and trends in research on inclusive education: a systematic review”, *International Journal of Inclusive Education*, Vol. 23/12, pp. 1277-1295,

Amzat I H, Padilla-Valdez N, (eds), 2017. Teacher Professional Knowledge and Development for Reflective and Inclusive Practices. London, N.Y.: Routledge

Anderson, R. (2007). Thematic content analysis (TCA): Descriptive presentation of qualitative data. Palo Alto, California.

Angelides P, (ed). 2019. *Pedagogies of Inclusion. Athens*: Diadrasi. [in Greek].

Ainscow M, Slee R. Best M, 2019. Editorial: the Salamanca Statement: 25 years on. International Journal of Inclusive Education, 23:7-8, 671-676,

Anishchuck, A. M. (2016). Inclusive education: a textbook for university students majoring in Preschool Education. Gogol State University.

Anupriya, M. S., & Salim, D. (2014). *Including children with special needs primary stage: Department of education of groups with special needs*. New Delhi: National council of Education Research and Training.

Armstrong D, Armstrong A C, Spandagou I, (2011). Inclusion: by choice or by chance? *International Journal of Inclusive Education, 15:1, 29-39*

Artiles, A. J., Dorn, S., & Christensen, C. (2006). Learning in inclusive education research: Re-mediating theory and methods with a transformative agenda. *Review of Research in Education, 30*(1), 65–108.

Aryana, S., & Apsari, Y. (2018). Analyzing Teacher’s Difficulties in Teaching Listening. Journal of English Language Teaching in Indonesia, 6, 100-106.

Avramidis, E., Avgeri, G., and Strogilos, V. (2018). Social participation and friendship quality of students with special educational needs in regular Greek primary schools. *Eur. J. Spec. Needs Educ.* 33, 221–234.

Badugela, Thivhavhudzi and Muriel (2012). Problems facing Educators in Implementing the National Curriculum Statement: The Case of Tshifhena Secondary School, Vhembe District, Limpopo Province, South Africa. University of South Africa, 2012.

Banks, L.M. & Polack, S. (2013). *The economic costs of exclusion and gains of inclusion of*

people with disabilities: Evidence from low and middle income countries. London: CBM and the London School of Hygiene and Tropical Medicine.

Barton, L. (1997). Inclusive education: Romantic, subversive or realistic? *International Journal of Inclusive Education, 1(3), 231-242.*

Basit, T. N. (2010). Conducting research in educational contexts. London: Continuum International Publishing Group.

Bayram, B., & Öztürk, M. (2020). Opinions and practices of social studies teachers on inclusive education. Education and Science, Early Release, 1-23.

Begum, A. (2017). Inclusive Education: Issues and Challenges. *Scholarly Research Journal for Interdisciplinary Studies*, 4/35

Bentley-Williams, R., & Morgan, J. (2013). Inclusive education: Preservice teachers' reflexive learning on diversity and their challenging role. Asia-Pacific Journal of Teacher Education, 41(2), 173-185.

Berehova, M. I. (2019). [Didactic and practical training of future correctional teachers for work in an inclusive educational environment].

Bešić, E. (2020), "Intersectionality: A pathway towards inclusive education?", *PROSPECTS*,

Beyene, G., & Tizazu, Y. (2010). Attitudes of teachers towards inclusive education in Ethiopia. *Ethiopian Journal of Education and Science*, 6(1), 89-96.

Bhat, M. D., & Geelani, S. Z. A. (2017). Inclusive Education in India: Issues, Challenges and Prospects. *The Communications*, 25(1).

Booth T, Ainscow M, 2016. The index for inclusion: A Guide to School Development Led by Inclusive Values (4th edition). Index for inclusion Network Limited.

Boston, MA: Pearson. Shi, J. (2013). The application of constructivism: Activities for enlivening comprehensive English class. English language Teaching, 6(2), 63–70.

Botha, J. & Kourkoutas, E. (2016). A community of practice as an inclusive model to support children with social, emotional, and behavioural difficulties in school contexts. *International Journal of Inclusive Education, 20*(7), 784–799.

Bourke, R., & Mentis, M. 2014. An assessment framework for inclusive education: integrating assessment approaches. *Assessment in Education: Principles, Policy*, 384–397.

Boyle, C., & Anderson, J. (2020). The justification for inclusive education in Australia. Prospects, 49, 203e217.

Brookhart, S., & Lazarus, S. 2017. *Formative Assessment for Students with Disabilities.* Washington DC: Council of Chief State School Officers State Collaboratives on Assessing.

Brunello, G. and M. De Paola (2017), *School Segregation of Immigrants and its Effects on educational outcomes in Europe*, European Expert Network on Economics of Education (EENEE),

Brussino, O. (2020), "Mapping policy approaches and practices for the inclusion of students with special education needs", OECD Education Working Papers, No. 227, OECD Publishing, Paris.

Bryman, A. (2012). *Social research methods*. Oxford: Oxford University Press.

Bugti, A. G., & Kazimi, A. B. (2021). The Implementation of Inclusive Education in Sindh: Challenges and Opportunities. *Palarch's Journal of Archaeology of Egypt/Egyptology*, 18(6), 37-46.

Bunch,G. &Fnnegan, K.Values teachers find in inclusive education. Including the excluded.(Manchester: International special education congress classroom practice.

Cameroon-National Development Strategy 2020-2030.

Carrington, S., Pillay, H., Tones, M., Nickerson, J., Duke, J., Esibaea, B., Malefoasi A. & Fa'asala, C.J. (2017). A case study of culturally informed disability-inclusive education policy development in the Solomon Islands. *International Journal of Inclusive Education*, 21(5), 495-506.

Causton, J., & Theoharis, G. (2013). Inclusive schooling: Are we there yet? Making legal U-turns from outdated principles and practices to better serve students with disabilities. *School Administrator,* 70(2), 19-25.

Cerna, L. et al. (2021), "Promoting inclusive education for diverse societies: A conceptual framework", OECD Education Working Papers, No. 260, OECD Publishing, Paris.

Chapman, J., Greatney, K., & Prochnow, J. (2019). The contribution of educational psychology to intervention research and practice. International Journal of Disability, Development and Education, 49(1), 11–29.

Chen, W. (2011), "How Education Enhances Happiness: Comparison of Mediating Factors in Four East Asian Countries", *Social Indicators Research*, Vol. 106/1, pp. 117-131,

Christensen, C. (1996). Disabled, handicapped or disordered: What □s in a name? In C.

Christensen and F. Rizvi (eds.), *Disability and the dilemmas of education and justice* (pp.63-78). Buckingham: Open University Press.

Chupakhina, S. (2019a). Information technologies in inclusive education: future teachers readiness. International Scientific Conference Scientific Development of New Eastern Europe: Conference Proceedings, Part I (pp. 85-89) Baltija Publishing.

Chwab, S. (2021). "Inclusive and special education in Europe," in The Oxford Encyclopedia of Inclusive and Special Education. eds. U. Sharma and S. J. Salend (Oxford: Oxford University Press), 807–819.

Clough, P. and J. Corbett (2000), *Theories of Inclusive Education: A Students' Guide*, SAGE Publications Ltd,

Cobley, D. (2018). *Disability and international development: A guide for students and practitioners.* London: Routledge.

Creswell, J., & Plano Clark, V. (2007). Designing and conducting mixed methods research. Thousand Oaks, CA: Sage.

Daiute, C., Sullu, B., and Kovács-Cerović, T. (2021). What is social inclusion? Insights from interventions with youth across migration system. Behav. Brain Sci. 8, 143–151.

Dally, K.A., Ralston,M.M.,Strnadova,I.,Dempsey,I.,Chambers,D.,Foggett,J., Paterson, D., Sharma, U., & Duncan, J. (2019). Current issues and future di- rections in Australian special and inclusive education. Australian Journal of Teacher Education, 44(8), 57e73.

Dare, L., Nowicki, E., and Felimban, H. (2017). Saudi children's thoughts on inclusive education. Int. J. Incl. Educ. 21, 532–543.

Darling-Hammond, L. (2010). Teacher education and the American future. Journal of teacher education, 61(1-2), 35-47.

Das, A. K., Kuyini, A. B., & Desai, I. P. (2013). Inclusive Education in India: Are the Teachers Prepared? *International Journal of Special Education*, *28*(1).

Dell'Anna, S., Pellegrini, M., and Ianes, D. (2021). Experiences and learning outcomes of students without special educational needs in inclusive settings: a systematic review. Int. J. Incl. Educ. 25, 944–959.

Delubom, N. E., Marongwe, N., & Buka, A. M. (2020). Managers' challenges on

implementing inclusive education: Technical Vocational Education and Training Colleges: Technical Vocational Education and Training Colleges. *Cypriot Journal of Educational Sciences,* 15(6), 1508–1518.

Demchenko, I., Maksymchuk, B., Bilan, V., Maksymchuk, I., & Kalynovska, I. (2021). Training Future Physical Education Teachers for Professional Activities under the Conditions of Inclusive Education. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 12(3), 191-213.

Department of Education (DoE). 2007. *No Child Left Behind modified academic achievement standards-Non-regulatory guidance*. Retrieved from

Deppeler J, Harvey D, Loreman T, 2010. Inclusive education: A practical guide to supporting diversity in the classroom (2nd edition). Abingdon: Routledge.

Dixon, R., Woodcock, S., Tanner, K., Woodley, L., & Webster, A. (2017). Teaching in inclusive school environments (2nd ed.). David Barlow Publishing.

Doolittle, P. E. (2014). Complex constructivism: A theoretical model of complexity and cognition. *International Journal of Teaching and Learning in Higher Education*, *26*(3), 485–498.

Dreyer L, 2016. Inclusive Education. In: "Education Studies for Initial Teacher Development".

Dukpa D., & Kamenopoulou, L. (2018). The conceptualisation of inclusion and disability in Bhutan.

Egaga, P., & Aderibigbe, S. A. (2015). Sustainable Implementation of Inclusive Education Programme for Children with Hearing Impairment in Nigeria: Strategies Involved. *International Journal of Humanities Social Sciences and Education (IJHSSE)* 2(4), 162-165

Eleweke, C. J., & Ebenso, J. (2016). Barriers to Accessing Services by People with Disabilities in Nigeria: Insights from a Qualitative Study. *Journal of Educational and Social Research,* 6(2).

Endeley, M.N & Zama, M. (2021). Perspectives in Curriculum Studies in Cameroon.

Engstrand, R. Z., & Roll-Pettersson, L. (2014). Inclusion of preschool children with autism in Sweden: Attitudes and perceived efficacy of preschool teachers. Journal of Research in Special Educational Needs, 14, 170–179.

Ertmer, P. A. & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing

critical features from an instructional design perspective. *Performance Improvement Quarterly, 26*(2), 43–71. doi:10.1002/piq.21143.

Esmer, B., Yılmaz, E., Guneş, A.M., Tarım, K., & Delican, B. (2017). Classroom teachers' experiences related to the education of inclusive students. *The Journal Kastamonu Education, 25 (4): 1601-1618.*

Etieyibo, E. (2020). Rights of Persons with Disabilities in Nigeria. *Afrika focus,* 33(1), 59-81

Evans, J. & Lunt, I. (2012). Inclusive education: Are there limits? European Journal of for Learning, 21, (2), 2012, 85–91.

Evgeniou, E. & Loizou, P. (2012). The theoretical base of e-learning and its role in surgical education. *Journal of Surgical Education, 69*(5), 665–669.

Fafumera, J in Stance, R. (2019): Evaluating Educational Programmes, Paris: OECP.

Finkelstein, E.A. (2021). Cross Country Comparison of Expert Assessments of the Quality of Death and Dying.

Finkelstein, S., Sharma, U., & Furlonger, B. (2021). The inclusive practices of class- room teachers: A scoping review and thematic analysis. *International Journal of Inclusive Education, 25(6), 735e762.*

Florian L, 2014. What counts as evidence of inclusive education? *European Journal of Special Needs Education, 29:3, 286-294,*

Florian, L. (2015) Inclusive pedagogy: An alternative approach to difference and inclusion. In F. Kiuppis and R. S. Hausstätter (Eds.). Inclusive education twenty years after Salamanca, 219-230. New York: Peter Lang.

Foreman P, Arthur-Kelly M, (eds), 2017. *Inclusion in action. Australia*: Cengage Learning.

Forlin, C., & Chambers, D. (2011). Teacher preparation for inclusive education: Increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education,* 39(1), 17–32.

Gabel S, Danforth S, (eds), (2008). Disability & the Politics of Education: An International

Gajendrabhai, V. S., & Saini, B. K. (2020). Challenges and Opportunities for Inclusive

Education of Persons with Disabilities. *Journal of Xi'an University of Architecture & Technology,* XII(III)

Graham, L. & Scott, W. (2016). *Teacher preparation for inclusive education: Initial teacher education and in-service professional development*. Report prepared for the Victorian Department of Education and Training.

Greene, J., Caracelli, V., & Graham, W. (1989). Toward a conceptual framework for mixed-method evaluation designs. Educational Evaluation and Policy Analysis, 11, 255–274.

Guralnick, M. and M. Bruder (2016), "Early Childhood Inclusion in the United States", Infants & Young Children, Vol. 29/3, pp. 166-177.

Hall, S. (2020), Young willing and able: youth survey disability report 2019.

Hankivsky, O. et al. (2007), "Gender, diversity and evidence-based decision making", *Health Law in Canada*, Vol. 28, pp. 1-15.

Harold, V. L. & Corcoran, T. (2013). Discourses on behaviour: A role for restorative justice? *International Journal on School Disaffection, 10*(2), 45–61.

Harold, V. L. & Corcoran, T. (2013). Discourses on behaviour: A role for restorative justice? *International Journal on School Disaffection, 10*(2), 45–61.

Harris, A., Jones, M. and Crick, T. (2020). Curriculum leadership: a critical contributor to school and system improvement. School Leadership and Management [Online], 40/1, 1–4.

Hartas, D. (2010). Quantitative research as a method of inquiry in education. In D. Hartas, Educational research and inquiry (pp. 65-81). London: Continuum International Publishing Group.

Harvey, M.W., Yssel, N., Bauserman, A.D., & Merbler, J.B. (2010). Preservice teacher preparation for inclusion an exploration of higher education teacher-training ınstitutions. Remedial and Special Education, 31(1), 24-33.

Haug P, 2017. Understanding inclusive education: ideals and reality. *Scandinavian Journal of Disability Research, 19 (3), 206–217,*

Hauschild, A. and Z.M. Htet (2015), *Analysis of Inclusive Education in Myanmar*. Yangon: Myanmar Education Consortium,

Hedegaard Hansen J, (2012). Limits to inclusion. International Journal of Inclusive Education, 16:1, 89-98,

Hehir, T., Grindal, T., Freeman, B., Lamoreau, R., Borquaye, Y. & Burke, S. (2017). *A*

summary of the evidence on inclusive education. Report prepared for Instituto Alana, in partnership with ABT Associates.

Hickey, G. (2014). The importance of learning philosophies on technology selection in education. *Journal of Learning Design, 7*(3), 16–22.

Hnoyevska, O. Y. (2016). Formation of correctional competence of a teacher of a secondary school with an inclusive form of education].

Hornby, G. (2014). *Inclusive special education: Evidence-based practices for children with special needs and disabilities.* New York:

Housawi, A., and Ibn Rageh, M. (2015). Obstacles to the inclusion of students with intellectual disabilities in public schools from the perspectives of teachers of intellectual education in the city of Jazan. Found. *Special Educ. Rehabilit. 2, 115–151.*

Hulgin, K. M. & Drake, B. M. (2011). Inclusive education and the No Child Left Behind Act: Resisting entrenchment. *International Journal of Inclusive Education, 15*(4), 389–404.

Hussu, A. M., & Strle, M. 2010. The assessment of children with special needs. *Procedia Social and Behavioral Sciences 2*, 5281–5284.

Inclusion BC (2017), *Implementing Inclusion in BC's Public Schools: Report on the June 14, 2017 Inclusive Education Summit*, inclusion. Changing paradigms and innovative approaches (pp.3-12). Routledge.

Joffe, H. (2011). Thematic Analysis. In D. Harper, & A. R. Thompson, Qualitative research methods in mental health and psychotherapy: A guide for students and practitioners (pp. 209-223). Chichester: John Wiley & Sons, Ltd.

Jordan, A. & McGhie-Richmond, D. (2014). Identifying effective teaching practices in inclusive classrooms. In C. Forlin & T. Loreman (Eds.), *Measuring Inclusive Education* (pp. 133-162). Bingley, UK: Emerald.

Kantavong, P., Nethanomsak, T., & luang-ungkool, N. (2012). Inclusive education in Thailand after 1999 National Education Act: A review of a pre-service teacher education system. Procedia - Social and Behavioral Sciences, 69, 1043-1051.

Karaca, M.A. (2018). The effect of inclusive education program on teachers' professional competencies in mainstreaming practices. (Master Thesis), Necmettin Erbakan University Institute of Educational Sciences, Konya.

Kart, A. and M. Kart (2021), "Academic and Social Effects of Inclusion on Students without

Disabilities: A Review of the Literature", *Education Sciences, Vol. 11/1, p. 16.*

Kasidis D, Apostolidou E., Doufexi Th, 2015. Special and intercultural education in the spectrum of inclusive philosophy. Proceedings of the 5th Panhellenic Conference of Educational Sciences, vol. 1. Athens.

Kasyanenko, O. M. (2018). Future teacher training for work with preschool children in the inclusive learning environment.

Kenneth Max Taneyo Nde, Andre Wamba, Maingari Daouda (2018). Educational practices, school inclusion and development of communication and social skills in autistic children Psycho-socio-anthropological perspectives armed with a quantitative analysis.

Khan, A. N., & Anisuzzaman, M. 2011. *The status of un-served children in education.* Dhaka: Campaign for Popular Education (CAMPE).

Khoaeane, T. J., & Naong, M. N. (2015). How to Overcome Challenges for Meaningful Implementation of Inclusive Education in Lesotho. *J Soc Sci,*, 42(3), 289-297.

Kocaj, A., Kuhl, P., Jansen, M., Pant, H. A., and Stanat, P. (2018). Educational placement and achievement motivation of students with special educational needs. Contemp. Educ. Psychol. 55, 63–83.

Krämer, S., Möller, J., and Zimmermann, F. (2021). Inclusive education of students with general learning difficulties: a meta-analysis. *Rev. Educ. Res.* 91, 432–478.

Krischler M, Powell J W, Pit-Ten Cate I M, 2019. What is meant by inclusion? On the effects of different definitions on attitudes toward inclusive education. European Journal of Special Needs Education, 34:5, 632-648,

Kuroda, K., Kartika, D. & Kitamura, Y. (2017). *Implications for teacher training and support for inclusive education in Cambodia: An empirical case study in a developing country.* JICA Research Institute Working Paper 148.

Kusimo, A. O., & Chidozie, F. C. (2019). Inclusive education and sustainable development goals: A study of the physically challenged in Nigeria. *Cogent Arts & Humanities,* 6(1), 1684175,

Lenjani, I. (2016). Constructivism and behaviorism methodologies on special needs education. *European Journal of Special Education Research, 1*(1), 17–24.

Liao, J. and J. Zhao (2013), "Rate of Returns to Education of Persons with Disabilities in Rural China", *Proceedings of the 2013 International Conference on Applied Social Science Research*

(ICASSR-2013),

Lindner, K. -T., and Schwab, S. (2020). Differentiation and individualisation in inclusive education: a systematic review and narrative synthesis. *Int. J. Inclu. Edu.*

Lindner, K. T., Alnahdi, G. H., Wahl, S., and Schwab, S. (2019). Perceived differentiation and personalization teaching approaches in inclusive classrooms: perspectives of students and teachers. Front. Educ. 4:58.

Liu, C. C. & Ju, I. (2010). Evolution of constructivism. *Contemporary Issues in Education Research, 3*(4), 63– 66.

Liu, C. C. & Ju, I. (2010). Evolution of constructivism. Contemporary Issues in Education Research, 3(4), 63– 66.

Loreman, T., Forlin, C. & Sharma, U. (2014). Measuring indicators of inclusive education: A systematic review of the literature. In C. Forlin & T. Loreman (Eds.), *Measuring Inclusive Education* (pp. 3-17). Bingley, UK: Emerald.

Maghrabi, M. (2013). Obstacles facing student teacher in the inclusion schools and their impact in their attitudes towards children with intellectual disabilities. *Society for Culture for Development Journal* 13, 107–180.

Maingari D., (nd). Vers une société plus inclusive au Cameroun ? De Yaoundé à Paris. RencontPublié sur INSHEA (https://www.inshea.fr)

Malak, S. (2013). Inclusive education reform in Bangladesh: Pre-service teachers' responses to include students with special educational needs in regular classrooms. *International Journal of Instruction, 6, 195-214.*

Malinen, O., Savolainen, H., & Xu, J. (2012). Beijing in-service teachers' self-efficacy and attitudes towards inclusive education. Teaching and Teacher Education, 28, 526-534. Masters, G. 2018, April. What is 'equity' in education? *Teacher.*

McCoy, S., and Banks, J. (2012). Simply academic? Why children with special educational needs don't like school. *Eur. J. Spec. Needs Educ.* 27, 81–97.

McMurray, S., and Thompson, R. (2016). Inclusion, curriculum and the rights of the child. J. Res. Spec. Educ. Needs 16, 634–638.

Messiou, K. (2017) Research in the field of inclusive education: Time for a rethink? *International Journal of Inclusive Education*, 21(2),146-159.

Mezzanotte, C. (2020), "Policy approaches and practices for the inclusion of students with

attention-deficit hyperactivity disorder (ADHD)", *OECD Education Working Papers*, No. 238, OECD Publishing, Paris

Mitchell, D., & Sutherland, D. (2020). What really works in special and inclusive education using evidence-based teaching strategies (3rd ed.). Routledge.

Morgon Banks, L. and S. Polack (2015), The Economic Costs of Exclusion and Gains of Inclusion of People with Disabilities: Evidence from Low- and Middle-Income Countries.

Moriña A, (2017). Inclusive education in higher education: challenges and opportunities. *European Journal of Special Needs Education, 32:1, 3-17,*

Mowat, J. G. (2010). Inclusion of pupils perceived as experiencing Social and Emotional Behavioural Difficulties (SEBD): Affordances and constraints. *International Journal of Inclusive Education, 14*(6), 631–648.

Mpofu, E.; Shumba, A.; Maluwa Banda, D.; Mivenyi, Y.J.; Muller, K., Tchombe, T. &Teferra, T. (2007). Special Education in Sub-Saharan Africa.

Mpu, Y., & Adu, E. O. (2021). The Challenges of Inclusive Education and its Implementation in Schools: The South African Perspective. *Perspectives in Education*, 39(2), 225-238 *Act.*

Mundia, L. (2009). Implementation of Inclusive Education in Brunei. *Electronic Journal for Inclusive Education*, 1–30.

Munn P, Lloyd G, Cullen M A, (2000). Alternatives to Exclusion from School. London: Sage Publications.

Muskin, Joshua A. (2015). "Student Learning Assessment and the Curriculum: Issues and Implications." Educational Theory.

Nalliah, S. & Idris, N. (2014). Applying the learning theories to medical education: A commentary. *International E-Journal of Science, Medicine & Education, 8*(1), 50–57.

Nhalpo, C.V., Riis-Hansen, T.C. & Dansie, G.A. (2015). *Towards a disability inclusive education: Background paper for the Oslo Summit on Education for Development.*

Nilholm C, (2021). How can we improve our theories in order to change practice? European Journal of Special Needs Education, 36:3, 358-370,

Nishina, A. et al. (2019), "Ethnic Diversity and Inclusive School Environments", Educational Psychologist, Vol. 54/4, pp. 306-321.

Nolet, V. & McLaughlin, M.J. (2016). *Accessing the general curriculum: Including students with disabilities in standards-based reform* (2nd ed.). Thousand Oaks, CA: Corwin Press.

NSW DoE. (2021). Inclusive education statement for students with disability. New South Wales Department of Education.

O'Donoghue, T.A., & Chalmers, R. (2000). How teachers manage their work in inclusive classrooms.

OECD (2015), The ABC of Gender Equality in Education: Aptitude, Behaviour, Confidence, PISA, OECD Publishing, Paris.

OECD (2020), All Hands In? Making Diversity Work for All, OECD Publishing, Paris.

Oliver, M. 1996). Education for all? A perspective on an inclusive society. In M. Oliver, *Understanding Disability: From theory to practice* (pp.78-94). Basingstoke: Macmillan.

Opertti, R., Walker, Z. & Zhang, Y. (2014). Inclusive education: From targeting groups and schools to achieving quality education as the core of EFA. In L. Florian, *The SAGE Handbook of Special Education* (pp. 149-169). London: SAGE.

Peltier, G. (1997), "The Effect of Inclusion on Non-Disabled Children: A Review of the Research", *Contemporary Education*, Vol. 68/4, pp. 234-38.

Peters, S.J. (2003). *Inclusive education: Achieving Education for All by including those with disabilities and special education needs.* Washington, DC: The World Bank.

Petersen, A. (2016). Perspectives of special education teachers on general education curriculum access: preliminary results. *Res. Pract. Pers. Sev. Disabil.* 41, 19–35.

Phasha, N., Mahlo, D. & Dei, G.J.S. (Eds.) (2017). *Inclusive education in Africa: A critical reader.* Rotterdam: Sense.

Pirchio, S. et al. (2017), "Children's interethnic relationships in multiethnic primary school: results of an inclusive language learning intervention on children with native and immigrant background in Italy", *European Journal of Psychology of Education*, Vol. 34/1, pp. 225-238, PISA, OECD Publishing, Paris.

Powell, J.J.W., & Pfahl, L. (2018). Disability studies in the universal design university. In S. K. Gertz, practice. Sage Publications. practices: An international validation. Journal of Research in Special Educational Needs. 12(1):12-21.

Qvortrup, A., & Qvortrup, L. (2018). Inclusion: Dimensions of inclusion in education. International Journal of Inclusive Education, 22(7), 803e817.

Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., et al. (2018). Inclusive leadership: realizing positive outcomes through belongingness and being valued for uniqueness. Hum. Resour. Manage.

Rhim, L.M. & Lancet, S. (2018). *How personalized learning models can meet the needs of students with disabilities: Thrive Public Schools case study.* Report written for Center on Reinventing Public Education.

Rieser, R. (2012). *Implementing inclusive education: A Commonwealth guide to implementing Article 24 of the UN Convention on the Rights of Persons with Disabilities* (2nd ed.). London: Commonwealth Secretariat.

Robinson, D. (2017). Effective inclusive teacher education for special educational needs and disabilities: Some more thoughts on the way forward. Teaching and Teacher Education, 61, 164–178.

Rose, R. & Doveston, M. (2015). Collaboration across cultures: Planning and delivering professional development for inclusive education in India. *Support for Learning*, 30(3), 177-191.

Rose, R., Doveston, M., Rajanahally, J., & Jament, J. (2014). What is effectıve ınclusion? Interpreting and evaluating a western concept in an Indian context. Measuring Inclusive Education International Perspectives on Inclusive Education, 3, 37-51.

Roy, A., Guay, F., and Valois, P. (2015). The big-fish–little-pond effect on academic self-concept: the moderating role of differentiated instruction and individual achievement. *Learn. Individ. Differ.* 42, 110–116.

Ruben, M. (ed.) (2018), "Students from single-sex schools are more gender-salient and more anxious in mixed-gender situations: Results from high school and college samples", PLOS ONE, Vol. 13/12, p. e0208707.

Ruijs, N. M., Van der Veen, I., and Peetsma, T. T. (2010). Inclusive education and students without special educational needs. *Educ. Res.* 52, 351–390.

Rutigliano, A. (2020), "Inclusion of Roma students in Europe: A literature review and examples of policy initiatives", OECD Education Working Papers, No. 228, OECD Publishing, Paris.

Sadioglu, O., Bilgin, A., Batu, S., & Oksal, A. (2013). Problems, expectations, and suggestions of elementary teachers regarding inclusion. Educational Sciences: Theory and Practice, 13(3), 1760-1765.

Sahlgren, G. (2018), What Works in Gifted Education? Centre for Education Economics.

Sailor, W. (2015). Advances in schoolwide inclusive school reform. *Remedial and Special Education*, 36(2), 94–99.

Salend, S. J. (2011). *Creating inclusive classrooms: Effective and reflective practices* (seventh edition). Boston, MA: Pearson.

Saloviita, T. (2015). Measuring pre-service teachers' attitudes towards inclusive education: Psychometric properties of the TAIS scale. Teaching and Teacher Education, 52, 66-72.

Sanahuja-Gavaldà J M, Olmos-Rueda P, Morón-Velasco M, 2016. Collaborative support for inclusion. Jorsen. Nasen.

Sanger, C. S. (2020). Inclusive pedagogy and universal design approaches for diverse learning environments. In C. Sanger, & N. Gleason (Eds.), Diversity and inclusion in global higher education (pp. 31e72). Palgrave Macmillan.

Sanger, S. (2020). Inclusive Pedagogy and Universal Design Approaches for Diverse Learning Environments, Diversity and Inclusion in Global Higher Education.

Sareen J. (2014). Posttraumatic stress disorder in adults: impact, comorbidity, risk factors, and treatment. Canadian journal of psychiatry. *Revue canadienne de psychiatrie*, 59(9), 460–467.

Save the Children (2016). *Inclusive education: What, why, and how – A handbook for program implementers.* London: Save the Children.

Savolainen, H., Malinen, O.-P., & Schwab, S. (2020). Teacher efficacy predicts teachers' attitudes towards inclusion e a longitudinal cross-lagged analysis. International Journal of Inclusive Education.

Schuelka, M.J, & Johnstone, C.J. (2012). Global trends in meeting the educational rights of children with disabilities: From international institutions to local responses. *Reconsidering Development*, 2(2

Schuelka, M.J. (2018). The cultural production of the 'disabled' person: Constructing student

difference in Bhutanese schools. *Anthropology and Education Quarterly*, 49(2), 183–200.

Schwab, S. (2018). "Teachers' self-efficacy: the need for a student-specific conception of self-efficacy in addition to the global concept of self-efficacy," *[The professional development of teachers. Reflections on agency for an inclusive school]*. eds. M. Sibilio and P. Aiello (Neapel: EdiSES), 313–318.

Schwab, S., Gebhardt, M., and Gasteiger-Klicpera, B. (2013). Predictors of social inclusion of students with and without SEN in integrated settings. HRRI 49, 106–114.

Schwab, S., Lindner, K. T., Helm, C., Hamel, N., and Markus, S. (2021). Social participation in the context of inclusive education: primary school students' friendship networks from students' and teachers' perspectives. *Eur. J. Spec. Needs Educ.*, 1–16.

Schwab, S., Sharma, U., and Hoffmann, L. (2022). How inclusive are the teaching practices of my German, Maths and English teachers?–psychometric properties of a newly developed scale to assess personalisation and differentiation in teaching practices. Int. J. Incl. Educ. 26, 61–76.

Schwab, S., Zurbriggen, C. L. A., and Venetz, M. (2020). Agreement among student, parent and teacher ratings of school inclusion: A multitrait- multimethod analysis. *J. School Psychol.* 82, 1–16.

Sharma, A. (2015). Perspectives on inclusive education with reference to United Nations. *Universal Journal of Educational Research*, 3(5), 317-321.

Sharma, U., & Sokal, L. (2016). Can teachers' self-reported efficacy, concerns, and attitudes toward inclusion scores predict their actual inclusive classroom practices? *Australasian Journal of Special and Inclusive Education, 40(1), 21e38.*

Sharma, U., Loreman, T., & Forlin, C. (2012). Measuring teacher efficacy to implement inclusive

Sharma, U., Simi, J., & Forlin, C. (2015). Preparedness of Pre-service Teachers for Inclusive Education in the Solomon Islands. *Australian Journal of Teacher Education*, 40(5), 103-116.

Sharma, U., Sokal, L., Wang, M., & Loreman, T. (2021). Measuring the use of inclusive practices among pre-service educators: A multi-national study. Teaching and Teacher Education, 107, Article 103506.

Sherab, K., Dorji, K., Dukpa, D., Lhamo, K., Thapa, R. & Tshomo, S. (2015). *Opportunities and challenges of implementing inclusive education in Bhutanese schools: A case study*. Report prepared for UNICEF-Bhutan. Thimphu: UNICEF-Bhutan.

Sheremet, M., Leniv, Z., Loboda, V., & Maksymchuk, B. (2019). The development level of smart information criterion for specialists' readiness for inclusion implementation in education. Information Technologies and Learning Tools, 72(4), 273-285.

Shi, J. (2013). The application of constructivism: Activities for enlivening comprehensive English class. *English language Teaching, 6*(2), 63–70.

Shogren, K.A., McCart, A.B., Lyon, K.J. & Sailor, W.S. (2015). All means all: Building knowledge for inclusive schoolwide transformation. *Research and Practice for Persons with Severe Disabilities*, 40(3), 173–191.

Siribanpitak, P. (2018), 'Redesigning Teacher Education', in G. Fry (ed.), Education in Thailand. Education in the Asia–Pacific Region: Issues, Concerns and Prospects, volume 42. Singapore: Springer

Skrzypiec, G., Askell-Williams, H., Slee, P., and Rudzinski, A. (2016). Students with self-identified special educational needs and disabilities (si-SEND): flourishing or languishing! *Int. J. Disabil. Dev. Educ.* 63, 7–26.

Slee, R. (2010). Political economy, inclusive education and teacher education. In C. Forlin (Ed.), Teacher education for inclusion. Changing paradigms and innovative approaches (pp.13- 22). Routledge.

Slee, R. (2013). How do we make inclusive education happen when exclusion is a political predisposition? International Journal of Inclusive Education, 17(8), 895e907.

Somers, T. (2017), "Content and Language Integrated Learning and the inclusion of immigrant minority language students: A research review", International Review of Education, Vol. 63/4, pp. 495-520.

Somma M, Bennett S, 2020. Inclusive education and pedagogical change: experiences from the front lines. International Journal of Educational Methodology, 6 (2), 285- 295,

Song, J. 2016. Inclusive education in Japan and Korea – Japanese and Korean Teachers' self efficacy and attitudes towards inclusive education. *Journal of Research in Special Educational Needs*, 643–648.

Soulis G-S, 2002. Pedagogy of inclusion. T. A. From the "School of Separation" to a "School

for All". Series: Special Pedagogy, no 2. Athens: published by Typothito - G. Dardanos. [in Greek].

Sperotto, L. 2013. Educational Asessment of Children with Diabilities: A school level Approach. In S. G. Robinson, A. M. Kelly, & J. Williams , *Children with Neurodevelopmental Disabilities: The Essential Guide to Assessment and Management* (p. 688). London: Mac Keith Press.

Sprunt, B., Hoq, H., Sharma, U. & Marella, M. (2017). Validating the UNICEF/Washington Group Child Functioning Module for Fijian schools to identify seeing, hearing and walking difficulties. *Disability and Rehabilitation*, 20, 1-11.

Srivastava, M., de Boer, A. & Pijl, S.J. (2015). Inclusive education in developing countries: A closer look at its implementation in the last 10 years. *Educational Review,* 67(2), 179-19.

Stiefel, L., Shiferaw, M., Schwartz, A. E., and Gottfried, M. (2018). Who feels included in school? Examining feelings of inclusion among students with disabilities. *Educ. Res.* 47, 105–120.

Stofile, S.Y. (2008). Factors affecting the implementation of inclusive education policy: *A case study in one province in South Africa*. Unpublished PhD Thesis in the Faculty of Education, University of the Western Cape, South Africa.

Stotsky, S. (2012). Literature or Technical Manuals: Who Should Be Teaching What, Where, and Why? Nonpartisan Education.

Subban, P., Bradford, B., Sharma, U., Loreman, T., Avramidis, E., Kullmann, H., Sahli Lozano, C., Romano, A., & Woodcock, S. (2022). Does it really take a village to raise a child? Reflections on the need for collective responsibility in inclusive education. *European Journal of Special Needs Education.*

Subotić, S., & Anđić, B. (2014). The decline in socialization at the transition from class to subject teaching in the inclusion. *Specijalna edukacija i rehabilitacija*, *13*(3), 293-309.

Sukbunpant, S., Arthur-Kelly, M., & Dempsey, I. (2013). Thai preschool teachers' views about inclusive education for young children with disabilities. International Journal of Inclusive Education, 17:10, 1106–1118.

Suleymanov F, 2015. Issues of Inclusive Education: Some Aspects to be Considered. Electronic Journal for Inclusive Education, 3 (4).

Swanson, H. L., Orosco, M. J., & Lussier, C. M. (2014). The effects of mathematics strategy instruction for children with serious problem-solving difficulties. *Exceptional Children, 80*(2), 149–168.

Swart, E., & Pettipher, R. (2005). A framework for understanding inclusion. In E. Landsberg (Ed.), Addressing barriers to learning: A South African perspective (pp.3-21). Van Schaik.

Tambo, L. I. (2012). Principles and Methods of Teaching. Limbe.

Taylor & Francis Group. Armstrong, F. (2016). Inclusive education. The key role of teaching assistants. In G. Richards, & F. Armstrong (Eds.), Key issues for teaching asisstants. Working in diverse and inclusive classrooms (2nd edition, pp. 1-12). Routledge.

Tchombe, M.T. (2008), Understanding Normality in Child Development: The Premisefor Identifying Developments: *African Journal of Special Education Vol, No1 pp33-46.*

Tchombe, T. M. et al. (2014) Transnational research on inclusive education in institutions in Africa - the preparedness of educators: The case of Cameroon, Kenya, Nigeria, Cote de Ivoire &Togo.

Tennant, J. E., Demaray, M. K., Malecki, C. K., Terry, M. N., Clary, M., and Elzinga, N. (2015). Students' ratings of teacher support and academic and social-emotional wellbeing. *Sch. Psychol. Q.* 30, 494–512.

Thwala, S. (2015). Challenges Encountered by Teachers in Managing Inclusive Classrooms in Swaziland. *Mediterranean Journal of Social Sciences*, 6(1)

Tiwari, A., Das, A., & Sharma, M. (2012). Inclusive education a "rhetoric" or "reality"? Teachers' perspectives and beliefs. Teaching and Teacher Education, 52, 128-136.

Tomé, G., Almeida, A., Ramiro, L., and Gaspar, T. (2021). Intervention in schools promoting mental health and well-being: a systematic. *GJCPP* 12. Tomlinson, C. (2014). *The Differentiated Classroom: Responding to the Needs*

Tomlinson, C. (2014). The Differentiated Classroom: Responding to the Needs of All Learners. Alexandria, VA: ASCD

Tourón, J. and J. Freeman (2017), "Gifted education in Europe: Implications for policymakers and educators", in Pfeiffer, S. (ed.), *APA Handbook of Giftedness and Talent.*, American Psychological Association (APA), Washington,

Treviranus, J., Stolarick, K., Denstedt, M., Fichten, C., & Ascunsion, J. (2010). Leveraging

Inclusion and Diversity as Canada's Digital Advantage. OCAD University Open Research Repository, 1-33.

Tunmer, W., Chapman, J., Greatney, K., & Prochnow, J. (2002). The contribution of educational psychology to intervention research and practice. *International Journal of Disability, Development and Education, 49*(1), 11–29.

Ugwu, C. J. & Onukwufor, J. N. (2018). Investigation of Principals' Attitude towards Inclusion of Special Needs Students in Public and Private Secondary Schools in Rivers State, Nigeria. *American Journal of Applied Psychology*, 6(1), 1-7.

Umeasiegbu, V.I., Diallo, A. & Gere, B.O. (2018). Rehabilitation practice, employment, and policy for rural development for people with disabilities in West Africa.

UN Committee on the Rights of Persons with Disabilities (CRPD) (2016), *General comment No. 4 (2016), Article 24: Right to inclusive education, CRPD/C/GC/4*,

UNESCO (2012), *Addressing Exclusion in Education: A Guide to Assessing Education Systems Towards More Inclusive and Just Societies*,

UNESCO (2017), *A guide for ensuring inclusion and equity in education*, United Nations Educational, Scientific and Cultural Organization, Paris: UNESCO.

UNESCO (2018), Global education monitoring report gender review 2018: Meeting our commitments to gender equality in education.

UNESCO (2020), Global Education Monitoring Report 2020, UNESCO.

UNESCO Institute for Statistics (2019), Equity in education.

UNESCO Institute of Statistics (2018), Handbook on Measuring Equity in Education, UNESCO Institute for Statistics.

UNESCO-IBE (2016*). Reaching out to all learners: A resource pack for supporting inclusive education.* Geneva: UNESCO- IBE.

UNESCO. 2015. Education 2030 Incheon Declaration and Framework for Action: Towards Inclusive and Equitable Quality Education and Lifelong Learning for All. Paris: UNESCO.

UNESCO. United Nations Convention on the Rights of Persons with Disabilities. (2016). General Comment No. 4 - Article 24: Right to Inclusive Education,

UNICEF (2014), "Legislation and Policies for Inclusive Education", *Webinar 3 - Companion Technical Booklet*,

UNICEF (2020), *Education for Every Ability*. New York.

UNICEF (2022), Seen, Counted, Included: Using Data to Shed Light on the Well-being of Children with Disabilities. New York.

UNITED NATION (2015). Convention on the Rights of Persons with Disabilities (CPRD) | Persons with disabilities, A/RES/61/106.

Uromi, S. M. & Mazagwa, M. I. (2014). Challenges Facing People with Disabilities and Possible Solutions in Tanzania. *Journal of Educational Policy and Entrepreneurial Research*, 1(2), 158- 165

Vaillant, D. (2011). Preparing teachers for inclusive education in Latin America. Prospects: Quarterly Review of Comparative Education, 41(3), 385-398.

Van der Meulen, R. et al. (2014), "The Pull-Out Program Day a Week School for Gifted Children: Effects on Social-Emotional and Academic Functioning", *Child and Youth Care Forum,*Vol. 43/3, pp. 287-314,

Van Mieghem, K. Verschueren, K. Petry, E. Struyf (2020). An analysis of research on inclusive education: A systematic search and meta review. *International Journal of Inclusive Education, 24 (6)*

Villa, R.A. & Thousand, J.S. (2016). *Leading an inclusive school: Access and success for ALL students.* Alexandria, VA: ASCD.

Vygotsky, L. (1962). *Thought and language*. Cambridge, MA: Harvard University Press.

West, C. K., Farmer, J. A., & Wolff, P. M. (1991). *Instructional design: Implications from cognitive science*.

Westwood, P. (2018). Inclusive and Adaptive Teaching Meeting the Challenge of Diversity in the Classroom.

Wittrock, M. C. & Alesandrini, K. (1990). Generation of summaries and analogies and analytic and holistic Upper Saddle River, NJ: Prentice Hall PTR.

Woodcock, S., & Jones, G. (2020). Examining the interrelationship between teachers' self-efficacy and their beliefs towards inclusive education for all. *Teacher Development, 24(4), 583e602.*

Woolfson, L. 2018. Beyond formal assessments in inclusive classrooms. *The Psychology of Education Review, 42*(2).

World Bank (2017). Disability-inclusive Education in Africa Trust Fund.

World Bank Group (2016), *Equity and Inclusion*,

Yuh, E. and Shey, P. (2008). The education of persons with special needs in Cameroon: A historical perspective. *African Journal of Special Education, 1(1) 27-31*

APPENDICES

Questionnaire for Teachers

My name is Nji Evangeline Nyoma, with matriculation No. 20V3339, University of Yaoundé 1, Faculty of Science of Education, Department of Curriculum and Evaluation. I am currently carrying out Master Research on the topic "Inclusive Education Practices and Curriculum Implementation in Public Secondary Schools in Mfoundi Division". I would appreciate it if you respond to the questions below. Your responses are strictly for academic purposes and will be treated with confidentiality.

Thanks for your cooperation.

You are kindly requested to read each question and give your response to the best of your knowledge. Do not write your name on this questionnaire. Please be very open and frank in answering the following questions.

Instructions: Kindly place a tick **(√)** where appropriate.

Section A: Demographic Characteristics of the participants

1. Gender: Male ☐ Female ☐

2. Age: Between 25-35 ☐ Between 36-45 ☐ Between 46-60 ☐

3. Level of education: DIPES I ☐ Bachelor ☐ DIPES II ☐ Master of Education ☐ PhD ☐

4. Experience in teaching:

1-5 yrs ☐ 6-10 yrs ☐ 11-15 yrs ☐ 16-20 yrs ☐ 21yrs and above ☐

Strongly Agree: SA

Agree: A

Disagree: D

Strongly Disagree: SD

Teaching materials

No.	Items	SA	A	NU	D	SD
1.	Textbooks are inclusive in nature					
2.	Workbooks are designed for diverse learners					
3.	Use Posters and other displays material					

4.	Use Model materials in teaching					
5.	Make use of Visual aids in teaching					
6.	Use audio visual aid in teaching.					
7.	Use games such as card games, board games and classroom games for teaching.					

Teaching Methods

No.	Items	SA	A	NU	D	SD
1.	Keep activities and instructions short, clear and engaging.					
2.	Provide students with the time they need					
3.	Gain student's attention when giving instruction					
4.	Instruction provided in verbal instruction					
5.	Instruction provided in multiple formats visual instruction					
6.	Instruction provided in multiple formats (verbal and visual instruction					
7.	Reduce distractions through the careful arrangement of the classroom					
8.	Provide lots of opportunities for students to engage in collaborative learning.					

Assessment Methods

No.	Items	SA	A	NU	D	SD
1.	Use more formative assessments and make completion mandatory.					
2.	Balance low in-class activities stakes and high formal with grade stake assessments.					
3.	Make sure you are assessing the learning you are aiming for.					
4.	Provide descriptive, forward-looking feedback.					
5.	Consider assessment activities as learning activities.					

Interview Guide

"Teachers' views about teacher training towards inclusive education practices on curriculum implementation"

My name is Nji Evangeline Nyoma, with matriculation No. 20V3339, University of Yaoundé 1, Faculty of Science of Education, Department of Curriculum and Evaluation. I am currently carrying out Master Research on the topic "Inclusive Education Practices and Curriculum Implementation in Public Secondary Schools in Mfoundi Division". I would appreciate it if you respond to the questions below. Your responses are strictly for academic purposes and will be treated with confidentiality.

Thanks for your cooperation.

During your pre-service teacher training, what have you learned inclusive education?

What are the aims and reasons for learning about inclusive education during your pre-service teacher training? (Or why do you think you get to learn about it?)

Have you learned anything about students with disabilities, learning disabilities and/or special educational needs during your pre-service teacher training? (Please give examples)

Through in-service teacher training, have you gained any new and/or deeper knowledge, skills and attitudes that can be useful and applicable for your class?

What kind of additional support do you need in order to ensure good quality educational services that meet with the needs of all students?

Inclusive education practices in public secondary schools in Mfoundi division

Observation Checklist

The following checklist provides the opportunity for identifying related materials/methods and assessment practices in public secondary schools

Teaching methods	Yes	No
Inclusive language is used to ensure stereotyping is not present.		
Opportunities are provided for the experiences, voices, work and learning of students to be shared.		
Students work with others and mixed groups for diversity.		
Teaching methods and learning activities are varied to promote and support different learning styles/preferences.		
Expression of diverse perspectives and interpretations is encouraged.		
Opportunities for students to discuss personal learning		
Teaching materials		
Availability of Posters and other displays material		
Models and audio material		
Text books and other readings provide differing cultural/gender/race perspectives.		
Use visual aid in teaching.		
Use games such as classroom game for teaching		
Evaluation methods		
Balance low in-class activities stakes and high formal with grade stake assessments		
Use more formative assessments and make completion mandatory		
Alternate and diverse options for assessing student learning have been included.		
Provide descriptive, forward-looking feedback.		