UNIVERSITY OF CAPE COAST

EFFECTIVENESS OF INSTRUCTIONAL STRATEGIES

FORTEACHING ADAPTIVE SKILLS TO LEARNERS WITH

INTELLECTUAL DISABILITIES IN SPECIAL UNIT SCHOOLS IN

GHANA

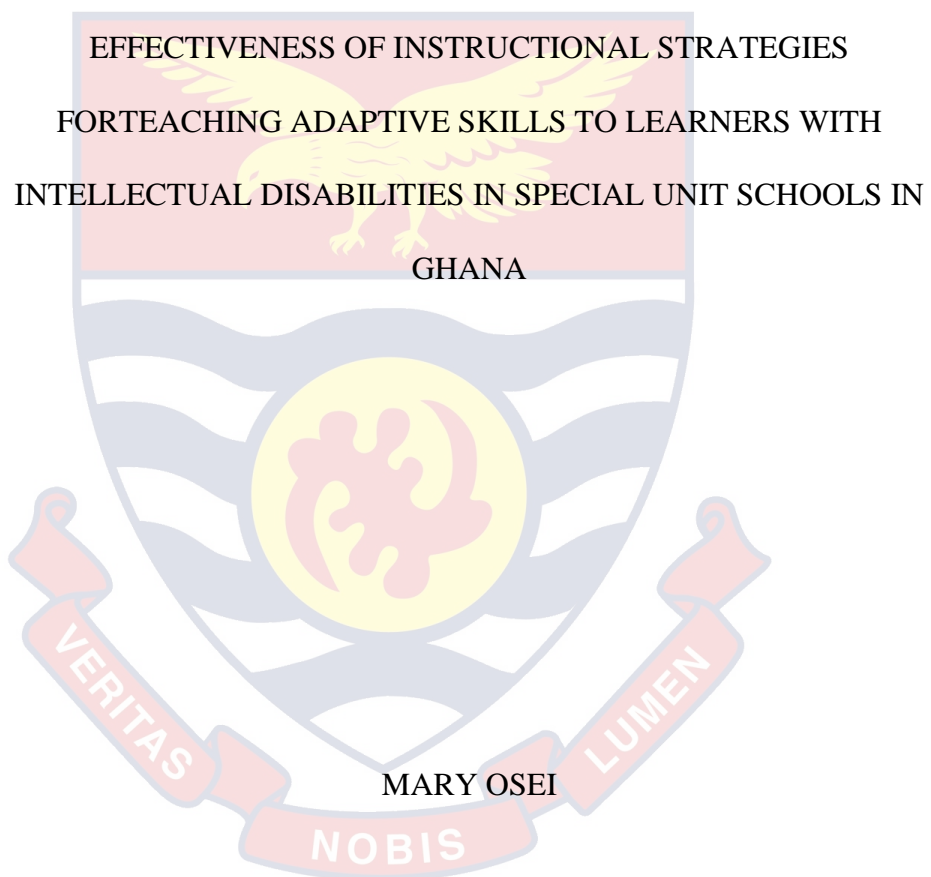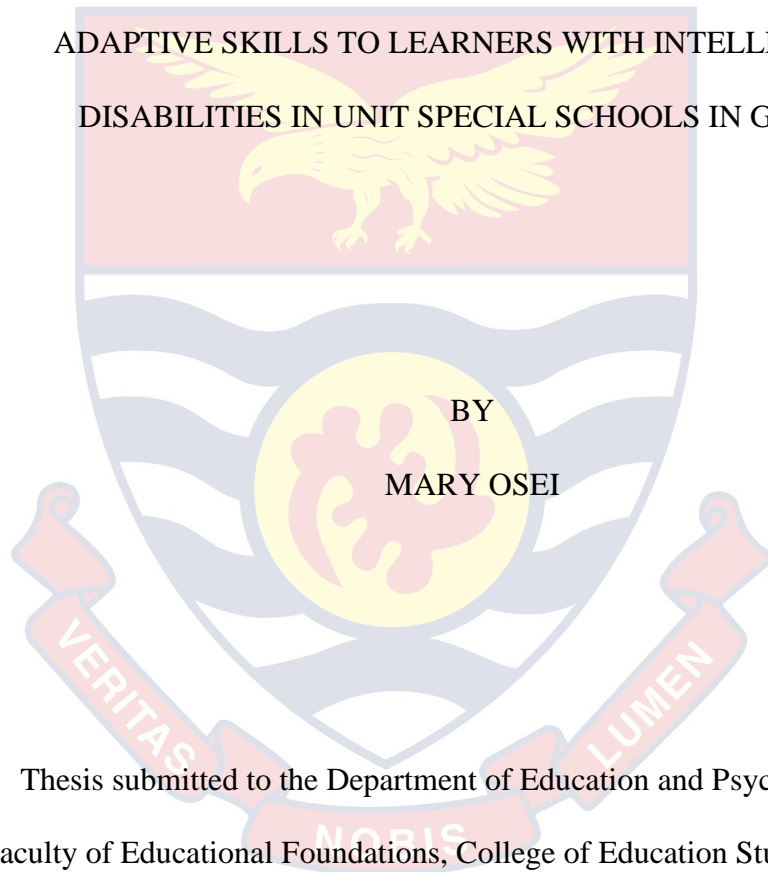MARY OSEI

2020

© Mary Osei

University of Cape Coast

UNIVERSITY OF CAPE COAST

EFFECTIVENESS OF INSTRUCTIONAL STRATEGIES IN TEACHING

ADAPTIVE SKILLS TO LEARNERS WITH INTELLECTUAL

DISABILITIES IN UNIT SPECIAL SCHOOLS IN GHANA

BY

MARY OSEI

Thesis submitted to the Department of Education and Psychology of the

Faculty of Educational Foundations, College of Education Studies, University

of Cape Coast in partial fulfilment of the requirement for award of Master of

Philosophy Degree in Special Education.

DECEMBER 2020

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature……………………   Date……………………

Name: ……………………………………………………………………………

Supervisors' Declaration

We hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of thesis laid down in the University of Cape Coast.

Principal Supervisor's Signature………………… Date……….…………

Name: ………………………………………………………………………..

Co-Supervisor's Signature………………….… Date………….………..

Name: ……………………………………….…………………………

ABSTRACT

Examining the effectiveness of instructional strategies in teaching adaptive skills to learners with intellectual disabilities was the aim of this study. A descriptive cross-sectional design was chosen for the conduct of this study. The study targeted all teachers within the Unit Special Schools in Ghana, in this case, census approach was embraced and all teachers willing offered themselves for the conduct of the study. Questionnaire of six hypothetical dimensions was used as the main data collection instrument. The response rate for the data collection exercise was 100%. Data to answer the five research questions were analysed using descriptive statistics, specifically, percentages and frequencies, mean and standard deviations. Findings of the study revealed that teachers are implementing a comprehensive adaptive skills curriculum in Ghana's Unit Special Schools. In addition, the study findings showed that cooperative method, direct instruction and interactive procedures were the predominantly used methods for teaching adaptive skills in the Unit Special Schools. Moreover, findings showed interactive and direct methods of teaching to be the most effective of all the instructional procedures in the teaching of adaptive skills. Based on the findings, the study recommended that Ghana Education Service in collaboration with all the head teachers must organize a workshop on 'effective instructional methods for adaptive skills teaching' to updates teachers regularly and to sustain their usage of students centered approaches to teaching. Further, the study recommended that head teachers of Unit Special Schools should at regular point in time encourage teachers through award schemes and recognition to continue using the effective methods such as cooperative and interactive methods together with the audio-visual resources.

KEY WORDS

Adaptive Skills

Augmentative Alternative Communication

Chaining

Cooperative Teaching

Direct Instruction/Teacher Directed Approach

Effectiveness

Extensive support needs

Group Learning

Intellectual Disabilities

Instructional Strategies

Interactive Teaching

Intelligent Quotient

Intermittent Support Needs

Limited Support Needs

Modelling

Peer tutoring

Pervasive Support Needs

Task Analysis

Teaching and Learning Materials

Team Teaching

ACKNOWLEDGEMENTS

I wish to express my deepest gratitude to my supervisors, Prof. Emmanuel Kofi Gyimah and Dr. Edward Kofi Ntim, both at the Department of Education and Psychology, Faculty of Educational foundation, University of Cape Coast under whose guidance and supervision this research has become a success. I am very grateful. Also, deserving gratitude is my husband, Mr. Bliss Kuffo for his morale and financial support. To the headteachers and teachers who took time of their busy schedules to respond to the questionnaires, I say thank you all. Again, my appreciation goes to my colleague students and all the lecturers of the Department of Education and Psychology. I owe Mr. Theophilus Asamoah and Mr. Isaac Amoako a very big thank you for their immense support. Finally, I thank my family and friends for all their support.
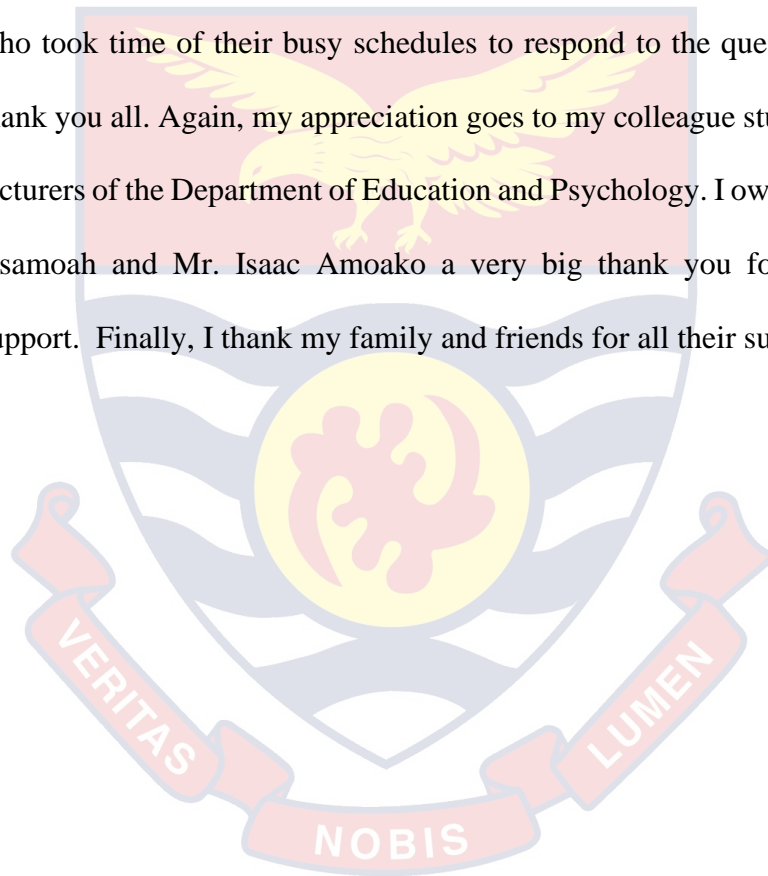
DEDICATION

To my husband, Mr. Bliss Kuffo and daughter, Bridget Edem Yawa Agbozo

TABLE OF CONTENTS

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND

RECOMMENDATIONS

LIST OF TABLES

LIST OF FIGURES

xii

LIST OF ACRONYMS

ID: Intellectual Disability

AS: Adaptive Skills

DLS: Daily Living Skills

IEP: Individualised Education Plan

ABA: Applied Behavior Analysis

AAMR: American Association of Mental Retardation

AAIDD: American Association on Intellectual and Developmental

             Disabilities

APA: American Psychology Association

AAC: Augmentative Alternative Communication

T/L/Ms: Teaching Learning Materials

USS: Unit Special School

IQ: Intelligent Quotient

CHAPTER ONE

INTRODUCTION

Background to the Study

Instructional strategies include all approaches that a teacher may take to engage students in the learning process actively. These strategies drive teachers' instruction as they work to meet specific learning objectives and ensure that their students are equipped with the tools needed to be successful. Effective instructional strategies meet all learning styles and the developmental needs of all learners. Teachers must be equipped with effective instructional strategies to maximize their effectiveness and to increase student learning opportunities. Variety ensures that students are never bored.

It also ensures that students are exposed to strategies that align with their preferred individualised learning style. Students enjoy being taught with varieties of instructional strategies and are likely to be engaged longer. Ultimately, teachers should align the instructional strategies they are using with the students they are serving and the content they are teaching. Not every instructional strategy will be the perfect fit for every situation, so teachers must become adept at evaluating which strategy will be the best fit.

According to Okyere and Adams (2003), intellectual disability (ID) is a particular state of functioning that begins in childhood and is characterized by decreased intelligence and adaptive skills and also is the most common developmental disorder. Teachers need to use the right type of instructional strategy which will be appropriate for teaching them adaptive skills. According

to the American Psychiatric Association (APA) (2013), "Adaptive skills are defined as practical, everyday skills needed to function and meet the demands of one's environment, including the skills necessary to effectively and independently take care of oneself and to interact with other people" (p. 16). These skills might seem to come naturally to most adults however, those with intellectual disabilities tend to have a more difficult time with them. These students often times, are dependent on their caregivers to complete simple daily tasks that typically developing children complete independently Yekple (2008).

For the purpose of this study, students who have intellectual and developmental disabilities are those students that currently have an intelligence quotient below 70 with one or more areas of adaptive skills falling below the normal range of functioning. American Association of Mental Retardation (AAMR) defined an intellectual disability as "Having a significantly sub average general intellectual function with an Intelligence Quotient below 70, existing concurrently with deficits in adaptive behaviour and manifested during the developmental period, that adversely affects a child's educational performance. Adaptive skills are taught alongside academic skills and are included on the student's Individualised Education Plan. Acquisition of adaptive skills will only be possible through effective instructional strategies which will enable persons with ID to be independent. Therefore, the major concern in this study is to find out whether teachers in the Unit Special schools in Ghana have knowledge about instructional strategies of teaching adaptive skill and effectively using the strategies to teach the IDs adaptive skills. Teachers have much role to play in making sure learners with ID acquire skills necessary for daily living. The component of adaptive skills in the curriculum aims at

equipping the child with skills for independence. It is believed that teachers are not equipped enough with the appropriate teaching methods of teaching adaptive skills even if they do, it seems that they refuse to use the strategies. Teachers just use the general method of teaching which not the best is for the learners with ID. To add to that, it seems some teachers in the schools do not receive special training to teach the adaptive skills. This has resulted in the learners not acquiring independent living skills. Learners with ID do exceed the exit point or their time of transition from school to work, because they still do not acquire the skills of daily living. Some become wayward and become burden to the community and the family. Schools find it difficult to graduate learners with ID because the learners do not acquire the requisite skills for independent living. This has resulted in a situation where learners with ID stay in the schools for years without graduating (Yekple 2008).

Teaching and learning materials also contribute to effective teaching and learning. The schools lack the appropriate materials used to teach the adaptive skills. According to Yekple (2008) adults have always had conceptions of how children should look or appear among their peers and what kind of skills children need in order to live on their own. In the Ghana, lack of skills in the basic and appropriate daily living skills make most children with intellectual disabilities look awkward which make room for humiliating comments from the 'normal' peers. Children with intellectual disabilities in Ghana lack age appropriate environmental values; they are not able to interact with their nondisabled counterparts in the society (Heward 2006).

Statement of the Problem

Scholars widely agree that all people with intellectual disabilities have deficits in intellectual functioning and face challenges in adaptive behaviour. When it comes to challenges in intellectual functioning, learning is a slow process because these people find it hard to recall, generalize activities and skills, and they are less motivated (Algahtani, 2017; Overskeid, 2008). On the other hand, adaptive problems include challenges with social skills, conceptual skills and practical skills. Therefore, in the learning setting, people with intellectual disability find it hard to socialize and master concepts (Algahtani, 2017). An empirical study has shown that learners in a classroom setup, with intellectual disabilities can attain a high quality of life in diverse aspects of life with an appropriate support provided (Baker et al., 2015). The curriculum and instructional methods for such students are often expected to be modified to suit their needs and to help them attain their potential in academic and functional areas of life like independent living (Giust & Valle-Riestra, 2017). What is the state of teaching of adaptive skills in Ghana's special schools presently? Is it effectively done or not effective? Answers to these questions are relevant because of the role that instruction play in the attainment of the Individualised Education Plan (IEP) goals of students in the various special schools in Ghana. It appears that there is paucity of information regarding investigations on instructional effectiveness for the teaching of adaptive skills in Ghana.

The issue is probably so because over the years, researchers in the field of special education have instead focused attention on issues such as; importance of special schools in the education of children with intellectual disabilities (Kassah, Kassah & Deborah, 2018), experiences of teachers who

4

teach children with intellectual disabilities (Okyere, Aldersey & Lysaght, 2019), role of care-givers of children with intellectual disabilities and support systems (Owusu, Enoch, Mprah , & Vampere, 2018), inclusive education for children with intellectual disabilities challenges (Mills, 2019). Aside the aforementioned studies other scholars in the Ghanaian context have again, over the years paid much attention to inclusive education agenda with specific focus on piloting, implementation, stakeholders' perception and challenges (Adera & Asimeng-Boahene, 2011; Vanderpuye, Gyimah, & Deku, 2009) leaving investigations about effective instructional strategies for teaching children with intellectual disabilities adaptive skills unattended to. This present study therefore sought to explore effective instructional strategies for teaching children with intellectual disabilities adaptive skills in Special Unit Schools in Ghana.

Purpose of the Study

The purpose of this study is to examine the effectiveness of the instructional strategies for teaching adaptive skills to learners with intellectual and developmental disabilities (ID) in the Unit Special Schools in Ghana.

The following specific objectives underpinned the study was to:

1. Examine the adaptive skills teachers teach learners with intellectual disabilities (ID) in the Unit special schools in Ghana.

2. Identify the instructional strategies teachers use in teaching adaptive skills in the Unit special schools in Ghana.

3. Determine the instructional strategies that are most effective in teaching adaptive skills in the Unit special schools in Ghana.

4. Ascertain the teaching and learning materials teachers use in teaching adaptive skills in the Unit special schools in Ghana.

5. Identify the challenges teachers in the special unit schools in Ghana face when using the instructional strategies in the teaching and learning process.

Research Questions

The study was guided by the following research questions:

1. Which adaptive skills do teachers teach learners with intellectual disabilities in (ID) in the Unit Special schools in Ghana?

2. What instructional strategies do teachers use to teach adaptive skills in the Unit special schools in Ghana?

3. Which of the instructional strategies are most effective in teaching adaptive skills to learners with ID?

4. What teaching and learning materials do teachers use in teaching adaptive skills to learners with intellectual disabilities (ID) in the Unit special schools in Ghana?

5. What are the challenges teachers in the Unit Special Schools in Ghana encounter when teaching adaptive skills to learners with ID?

Significance of the Study

The study results would also help in finding out what instructional strategies teachers use in supporting children with intellectual disabilities in Unit special schools in Ghana. This would enable the districts to organize in-service training for teachers on state-of-the-art instructional strategies that support pupils with intellectual disabilities adaptive skill acquisition. Moreover, results of the study would also help in revealing challenges teachers face in teaching adaptive skills in an attempt to achieve the goals of IEP of the students. This would also enable the districts to find means of addressing any inherent

6

problems. Finally, the study results would add to existing literature for other researchers interested in similar studies.

Delimitations

Issues surrounding the condition of learning disability are numerous to permit a single study to investigate. In the light of this, the study only looked at effective instructional strategies that teachers use to help students in Unit special schools learn adaptive skills. Geographically, the study was constrained to the twenty-three (23) Unit special schools in Ghana.

Limitations

In investigating the instructional strategies used by teachers in Unit special schools when teaching students with intellectual disabilities adaptive skills, only twenty-three (23) Unit special schools were used leaving the fifteen (15) boarding special schools in Ghana. The inability of the researcher to include all the special schools in the country is more likely to challenge the generalizability of the study.

Operational Definition of Terms

Strategy: It refers to the technique, method by which the teacher employs to teach students.

Learners with Intellectual disability: They are learners who perform far below average in intellectual or academic skills and have difficulties in engaging in adaptive skills.

Teaching/Learning Materials: They are the material teachers use to teach learners with ID which enhances their understanding.

7

Organization of the Study

The study has been organised into five chapters. The Chapter One discusses the Introduction, which highlights the background to the study, the research problem, and the purpose for the study. The research questions have been stated, with the significance and delimitation of the study. Chapter Two reviews the literature related to the study. Here the focus was on empirical conceptual and theoretical literature. Chapter Three describes the methodology used for the study. This involves the research design, population and sampling procedure, the research instrument, the pre-testing procedure, the procedure for data collection and the data analysis. In Chapter Four, the results are discussed while the Chapter Five summarises the study and provides conclusions. Recommendations are given in the last section of the chapter based upon the findings of the study.

8
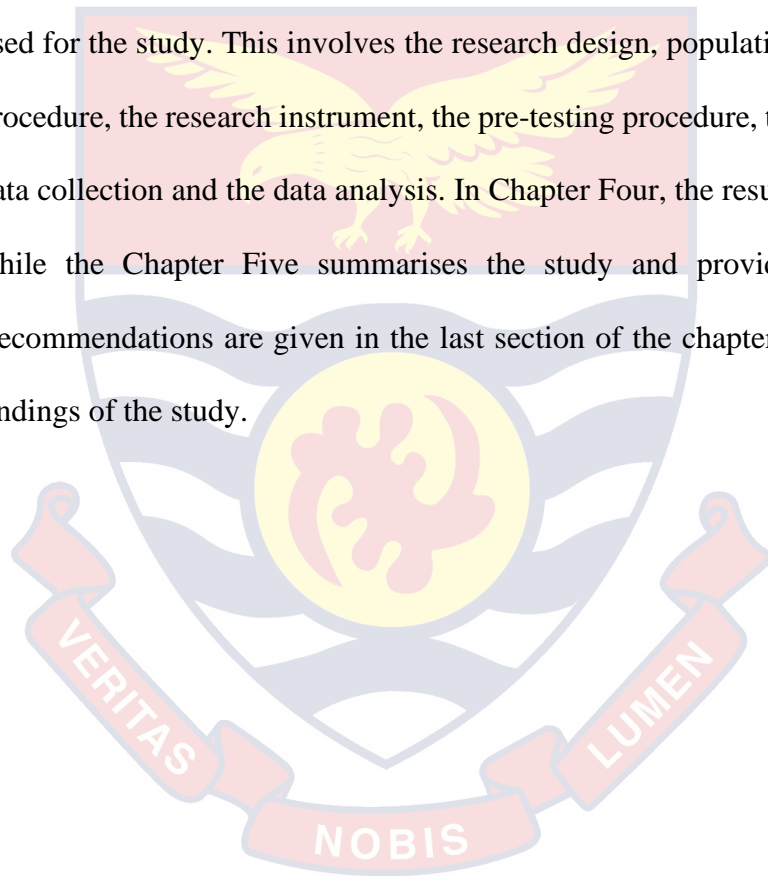
CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews the earlier studies related to the focus of the study. Among the issues discussed are the conceptual, theoretical and empirical evidences surrounding the study topic. The areas reviewed include the following:

Conceptual Review

1. The concept of intellectual disability.

2. Causes of intellectual disability.

3. The concept of adaptive skills.

4. Overview of individualised education plan.

Theoretical Review

Social learning theory (Bandura, 1977).

Empirical Framework

1. Adaptive skills taught in Unit special school.

2. Instructional strategies used by teachers in teaching adaptive skills.

3. Teaching and learning materials relevant for teaching adaptive skills.

4. Challenges that teachers encounter in the teaching of adaptive skills.

The Concept of Intellectual Disability

There have been several definitions over the years by many organizations according to how each of them had view intellectual disability. The US Department of Education defines intellectual disabilities as "significant

9

sub average general intellectual functioning existing concurrently with deficits in adaptive behaviour, and manifest during developmental period. (Obi & Avoke, 2007). American association of mental retardation (AAMR) the oldest organization defines intellectual disabilities (ID) as "significant sub average general intellectual functioning existing concurrently with deficits in adaptive behaviour, and manifest during developmental period (Heward 2006). From the definition, it is clear that a learner with ID performs significantly below average, as he/she manifests deficits in cognition as well as adaptive behaviour. As far back as 1959, a group of professionals from the American Association on Mental Deficiency (AAMD) which later became American Association of Mental Retardation (AAMR) provided what has become the basis for the most wildly accepted definition of intellectual disability. This definition has been revised over the passing years. In 1992, AAMR proposed another definition of intellectual disability that focused on the level and the type of support a person needs to function in community settings. This new definition is referred to as;

> *substantial limitations in present functioning, characterized by sub average intellectual functioning existing concurrently with related limitations in two or more applicable adaptive skill areas. The adaptive skill areas mentioned in the definition are communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure and work.' Mental retardation manifests before age* 18 *cited by* (Hayford, 2000).

10

The definition suggests that, an individual should be evaluated across four dimensions:

1. Intellectual functioning and adaptive skills.

2. Psychological and emotional health.

3. Physical health.

4. Environmental support.

It debunks the reliance on intelligence as the sole criterion for measuring intellectual disability. Nevertheless, the above definition raised two key issues like the previous definition proposed in 1959. One of the issues is *"significantly sub-averages general intellectual functioning,* this statement reflects on the intelligence or cognitive capacity of the individual with intellectual disability Ocloo, Hayford, Agbeke, Gadagbui, Avoke, Boison, Oppong, and Essel (2002). In view of that, Ocloo et al., (2002) explained that an individual with intellectual disability demonstrates a drastically poor abilities in skills or activities in relationship with intelligence such as attention, memory, abstract thinking problem solving reasoning, transfer of knowledge and generalization.

Intelligence per se is an abstract concept which is measured by intelligence test performance in the areas mentioned earlier. The second key issue raised was existing concurrently with related limitations in two or more applicable adaptive skill areas. Adaptive skills refer to the skills an individual need to function in his/ her environment. They include skills required to accomplish personal needs, (personal skills) skills to relate harmoniously with others in the society (social skills) and skills required to utilize resources in the community (community skills). Some individuals do not know how to make friends or strike acquaintances, others cannot maintain themselves to attract

11

friends and still others overlook the rights of their friends. Though this problem may be persistent in the general population, those with intellectual disability tend to manifest extreme problem in these areas (Ocloo et al., 2002).

Individual with intellectual disability can learn, but in a very low pace and do not learn higher level of concepts nor analytical reasoning as their non-disabled counterpart. Intellectual disability is said to be a comprehensive disability because it does not only affect school learning, it also impacts the way the individual acquires language, social skills, daily living skills, as well as vocational skills. It is also said to be a developmental disability because it affects the individual very early in life and negatively impact the person throughout life. In making a diagnosis of intellectual disability, the AAMR suggests that the condition exists if;

    i.   the person's intellectual functioning level is below IQ 70- 75

    ii.   the onset is age 18 or below and

    iii.   there are significant disabilities in two or more adaptive skill areas (Heward 2006)

In interpreting evaluation data, one must consider the effects of cultural and linguistic diversity on communication and behaviour. The existence of limitations in adaptive skills should be reflective of the context of community environments typical of the student's age. To obtain a comprehensive picture of the student's abilities, all assessment information gathered must be integrated. The information derived from assessment of the student's functioning levels in usual or natural environments is of primary importance to the development of an appropriate educational program. The assessments conducted for programming can identify more specifically the student's areas of need than can

12

other measures used to establish eligibility (Boyd, Grossman, Lankford, Loeb & Wyckoff, 1999).

The American Association on Mental Retardation (AAMR) later changed their name to become the American Association on Intellectual and Developmental Disabilities (AAIDD). The association also defined intellectual disabilities ''as significant limitations both in intellectual functioning and in adaptive behaviour, which covers many everyday social and practical skills. They added that, intellectual limitations refer to an Intelligence Quotient (IQ) which falls two standard deviations below the population mean of 100 (< 70), impairments in adaptive functioning and onset before age 18 (APA, 1994).

According to Kirk et al., (2001) intellectual disability involves problems with general mental abilities that affect functioning in two areas: intellectual functioning (such as learning, problem solving, and judgment) and adaptive functioning (activities of daily life such as communication and independent living). Intellectual disability affects about 3 percent of the population, and of those about 85 percent have mild intellectual disability and they added that, males are more likely than females to be diagnosed with intellectual disability.

Classification of Intellectual and developmental Disability (IDD)

A number of ways have been developed to classify children with intellectual and developmental disability during the past few decades. The 1973 and 1983 AAIDD definitions of intellectual disability divided severity of disability into four categories (mild, moderate, severe and profound intellectual disability), a classification system that continues to have widespread acceptance and use. According to Okyere and Adams (2003) Intellectual disability (ID) is classified under mild, moderate, severe and profound. (Ocloo et al., 2002)

13

reiterated that, the mild was referred to as the educable, moderate were the trainable and the severe and profound were the custodial.

Individuals with Mild Intellectual Disability

Heward (2006) observes that many individuals with mild ID make tremendous advancements in adaptive skills, some to the point of functioning independently if exposed early to adaptive skills. Some children with mildly disabled are not identified until they enter school and sometimes, when more difficult academic work is required. Few go up to class 6 and are able to learn job skills well enough to support themselves independently or semi independently. Heward (2006) maintains that, acquisition of adaptive skills would also activate general development of their intellectual, social, motor and moral characteristics as well as raising their self-esteem.

Individuals with Moderate Intellectual Disability

Children with moderate intellectual disability show significant delays in development during their preschool years (Turnbul, Turnbull. & Wehmeyer, 2007). People with moderate ID are more likely to have health and behaviour problems than are individuals with mild retardation.

Individuals with Severe and Profound

Individuals with severe and profound Intellectual disabilities are almost always identified at birth or shortly afterwards. Most of them have significant central nervous system damage, and many have additional disabilities and/or poor health conditions and these two groups hardly function without support from caretakers who in most cases are their parents, caregivers and teachers (Heward, 2006). Heward (2000) maintains that, intellectual disability is an impairment of cognitive skills, adaptive life skills, and social skills.

14

Individuals with Intellectual and developmental Disabilities are slower to learn new skills and concepts than their non-disabled counterparts, but with the assistance of a supportive educational system are often able to live independently as adult. About 85% fall into the "mild" category, and receive the diagnosis of Mild Intellectual Disability. When diagnosing this condition, professionals look at two factors: Intelligence functioning and adaptive skills. Intelligence functioning is measured by an IQ (Intelligence Quotient) score. The average IQ is 100. Individuals with IQs of less than 70-75 are considered Intellectually Disabled. Adaptive skills refer to the tasks of daily life, such as communicating with others, or being able to take care of one's own needs. Intellectual Disability manifests itself as deficits in both of these factors (Zigler et al., 1991). They further argue that an appropriate classification of ID employs both IQ score and etiology of the retardation.
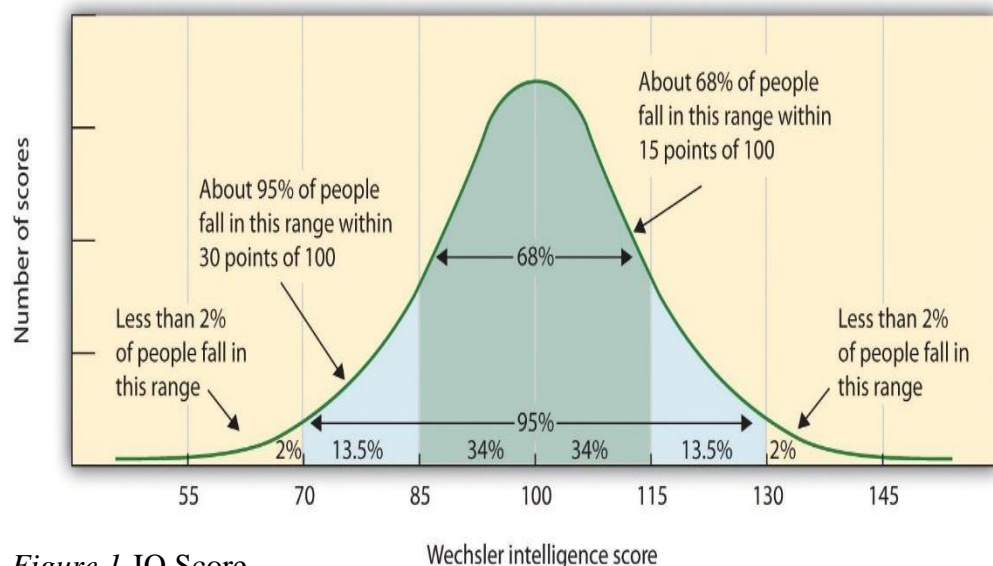
Figure 1-IQ Score

Source: Adapted from Zigler et al., (1991)

Ghana adaptive behaviour scale (GABS) is being used to test the adaptive behaviour skills in the Unit special schools. Assessment is also

15

conducted at the assessment centres. However, in Ghana, there are no known standardized test used to test the condition apart from the educational assessment. People just use observation to describe them according to their behavior, moreover children who are not performing are often labeled in the communities with certain terminologies and derogatory terms that directly portray them as not academically good. For example, in eʋe, terms such as 'asovi' 'susudidivi', 'nutodzitɔ' 'eʋɔvi' are used. In Ga, 'buulu' and in akan 'djimidjimi' is used. Even though there is no standardized test used before these labels coined in Ghana, they are quite derogatory and suggest nothing than perceived incompetency. The labels give demeaning statuses for these individuals and often affects their acceptance in regular school system and most often have been the basis for their referral to the special schools for their education Yekple, Deku, Offei, Mensah, Dogbe, Mensah, Mensah, & Acheampong (2015).

Table 1-*The Four Broad Category of Intellectual Disability IQ Scale*

Level	IQ	Score
Mild	70	55
Moderate	55	40
Severe	40	25
Profound	25	0

Source: Adapted from Yekple et al., (2015)

Definition Based on Levels of Support

American Association on Mental Retardation (AAMR) is the largest interdisciplinary organization of professionals and citizens concerned about intellectual and developmental disabilities with membership of over 5,000 in

the United States and about 55 countries worldwide. AAMR is now the leader in advocating quality of life and rights of those with intellectual disabilities. AAMR shifted from a classification model based on the severity of the impairment to type and extent of needed support. These include limited, intermittent, extensive and pervasive support needs to effectively function across adaptive skill areas in various natural settings rather than the person's deficit (Gargiulo, 2008). However, instead of classifying by the severity of functional limitations, the AAMR assessed severity based on the intensity of supports that are needed. These needs are typically identified using a standardized support need instrument such as the Supports Intensity Scale (SIS). The AAMR system evaluates a person's strengths and abilities, not just their limitations. It categorizes each person's level of functioning based on the level of support that person needs to function reasonably well in his or her preferred environment (Ocloo et al., 2002).

Table 2-*New Categorization Support Needs*

Category	Level of support needs
Intermittent needs	Require support occasionally
Limited needs	Require support in only one area of life
Extensive needs	Require support in several areas of life
Pervasive needs	Require total support throughout life

Source: Adapted from Ocloo et al., 2002)

Intermittent Support

These group of people with intellectual disabilities do not require regular support or assistance. Usually people requiring this level of support would be categorized under the APA standards as mild intellectual disability.

17

Limited Support

Learners with limited support can learn to improve their adaptive behaviour. With additional training, they can increase their conceptual skills, social skills, and practical skills. However, they may still require additional support to navigate everyday situations. People in this group would often be categorized by American Psychological Association (APA) standards as moderate intellectual disability (Ocloo et al., 2002).

Extensive Support

Other individuals with intellectual disability who require extensive support have some basic communication skills and can complete some self-care tasks. However, they will usually require daily support. This level of support is usually associated with severe intellectual disability by APA criteria (Ocloo et al., 2002).

Pervasive Support

Pervasive support describes the most intense level of support. Daily interventions are necessary to help the individual function. Supervision is necessary to ensure their health and safety. This lifelong support applies to nearly every aspect of the individual's routine. This classification is associated with those who have profound intellectual disability (Ocloo et al., 2002).

Teaching children with Intellectual Disabilities

Izuagie (1992) reiterated that, Intellectual disability is a life-long condition. However, early and ongoing intervention may improve functioning and enable the person to thrive throughout their lifetime. It may also be influenced by underlying medical or genetic conditions and co-occurring conditions. Once a diagnosis is made, help for individuals with intellectual

18

disability is focused on looking at the individual's strengths and needs, and the supports he or she needs to function at home, in school, work and in the community. Ncube (2006) asserts that some of the problems faced by learners with intellectual disabilities in achieving adaptive behaviour have their roots in strategies designed to help deal with a variety of environments and situations. He identifies three major strategies that are usually adopted to overcome lack of adaptive behaviour in learners with intellectual disabilities.

The first is "accommodation" which attempts to develop the behaviour patterns of a learner with a severe intellectual disability so as to enable him or her to cope in the social situations he or she is likely to encounter. Frieman (2001) argues that, this in effect, is an attempt to alter the manifest reality in order to produce the kind of behaviour that fits the beliefs and expectations of those who control the environment in the school or home, for instance.

The second approach is "locomotion" which refers to the removal of the learner with an intellectual disability from the situations in which he or she cannot cope to those in which he or she can. In effect, this leads to the restriction of the learner to a limited range of environments and situations. Clearly such environmental barrier limits the ability of learners with severe intellectual disabilities. Perceived as having limited social competence, these learners continue to be deprived by environmental barriers to their development which are usually justified in terms of their presumed deficiencies.

The third strategy is "construction" which attempts to alter the demands and expectations of others in situations which the learner with an intellectual disability is likely to encounter so as to enable him or her to cope despite his or her lack of social ability. (Woods & Shears, 2018). Services for people with

19

intellectual disabilities and their families provide support to allow full inclusion in the community. Many different types of supports and services can help and these include; early intervention (infants and toddlers) special education, family support (for example, respite care), transition services, vocational programs, day programs, housing options and case management supports.

Early intervention services work to identify and help infants and toddlers with disabilities. Federal law also requires that special education and related services are available free to every eligible child with a disability, including intellectual disability. In addition, supports can come from family, friends, co-workers, community members or from a service system. Job coaching is one example of a support that can be provided by a service system. With proper support, people with intellectual disabilities are capable of successful, productive roles in society (Koech, 1999). A diagnosis often determines eligibility for services and protection of rights, such as special education services and home and community services. The American Association of Intellectual and Developmental Disabilities (AAIDD) stresses that the main reason for evaluating individuals with intellectual disabilities is to be able to identify and put in place the supports and services that will help them thrive in the community throughout their lives.

Causes of Intellectual Disabilities – Etiology

According to Avoke (2001), Ghanaian society has evolved conception about the causative factors resulting in intellectual disability. Numerous traditional beliefs have been assigned not only to the emergence of intellectual disability but other disabilities as well. This discussion will not focus on any of those traditional beliefs which have not been tried and tested to validate and

substantiate their truthfulness or otherwise. Scientifically, there are numerous causes of intellectual disabilities these causes can be discussed under the time of onset of the problem or age of onset of the individual. These causes include: pre- natal, peri - natal and post – natal (Avoke, 2001).

Pre-natal factors

Pre-natal causes are events that happen before and during the conception of the child. Among them are the following:

Age of mother, Fetal Alcohol Syndrome (FAS), Smoking, over radiation, Rh Incompatibility, malnutrition, emotional stress, maternal trauma and accidental and falls indicated by Koech (1999).

Peri-natal Factors

Pre-natal causes are factors that emerged at labour period and these include; prolonged labour, Breech Birth, Transverse Birth, Anoxia and premature Birth. (Dworetzky, 1996) cited in Avoke (2001).

Post-natal Problems

Post-natal problems include infancy and childhood. It involves brain infections such as tuberculosis, Japanese encephalitis, and bacterial meningitis, head injury, chronic lead exposure, severe and prolonged malnutrition. (Ocloo et al 2002). It also includes metabolic disorders such as phenylketonuria, (PKU), hypothyroidism, Diseases like whooping cough, measles, or meningitis can cause intellectual disability if medical care is delayed or inadequate.

Other causes are exposure to poisons like lead or mercury may also affect mental ability (Aicardi, 1998; Daily, Ardinger & Holmes 2000). Iodine deficiency, goiter, can also cause intellectual disability. (Delange, 1994). Durkin, Khan, Davidson, Huq, Munir, Rasul, & Zaman (2000) added that, six

21

(6) killer childhood diseases include measles, poliomyelitis, tetanus, diphtheria whooping cough and yellow fever. Meader (2018) also said that meningitis is caused by bacteria and virus. The infection results in the destruction of the membrane that covers the brain and the spinal cord encephalitis is an inflammation of the brain tissues.

Characteristics of Individuals with Intellectual Disability

Ocloo et al., (2002) indicated the following characteristics of these individuals with intellectual disabilities.

1. **Sub- average intellectual functioning**

Performs poorly on verbal and nonverbal intelligence tests. Difficulty applying abstract processes, such as conceptualization, generalization and transfer of knowledge. Limited intellectual functioning in areas such as memory, imagination, and creativity (Ocloo et al., 2002).

2. **Academics**

Sub-average learning performance in basic academic skills Experiences difficulty in activities requiring reading and listening comprehension, such as following complex directions, gaining insight into problem situations and generalizing from rules and principles. Oral communication skills generally exceed written communication skills. Limited in incidental learning acquired through experience (Ocloo et al., 2002).

3. **Behaviour**

Lacks age-appropriate social skills. Difficulty in comprehending social situations. Low frustration tolerance. May exhibit poor self-concept. Has short attention span, poor memory, is hyperactive, aggressive and disruptive (Ocloo et al., 2002).

4. **Communication and understanding language**

Does not react to his own name by age 1 cannot identify parts of the face or body by age. Below average for age in language skills, **c**annot answer simple question by age 4**.** Delayed speech and language. Displays articulation disorders. Cannot follow simple instruction in class by age 5**.** Slow processing of questions often resulting in delayed responses (Ocloo et al., 2002).

5. **Physical and Mobility.**

Cannot walk by age 2. Is unable to sit up unsupported by 10 months Physical development generally proceeds at a slower rate. May manifest acute or chronic health problems. Cannot balance on one foot for a short time by age (Ocloo et al., 2002).

6. **Talking**

Does not say mama by 18 months, cannot name a few familiar objects by age 2. Is talking differently from other children of the same age (Ocloo et al., 2002).

7. **Reading and writing**:

Has difficulty in copying shapes. Mixes up letters such as 'b' and 'd' Has difficulty sequencing letters and words, cannot recall 5 numbers of words in the correct order immediately they are spoken (Ocloo et al., 2002).

Flow Chart

Instructional strategies and teaching/learning materials, are vital in acqusition of adaptive skills to learners with intellectual disabilities (ID) as shown in Figure 2.

23

```
┌─────────────────────┐
│ I.V                 │
│ Instructional       │
│ Strategies          │
└─────────────────────┘          ┌──────────────────┐
                                  │ (D.V)            │
                                  │ Acquisition of   │
                                  │ Adaptive Skills  │
┌─────────────────────┐          │                  │
│ I.V Teaching and    │          └──────────────────┘
│ learning materials  │
│                     │
│                     │
└─────────────────────┘
```
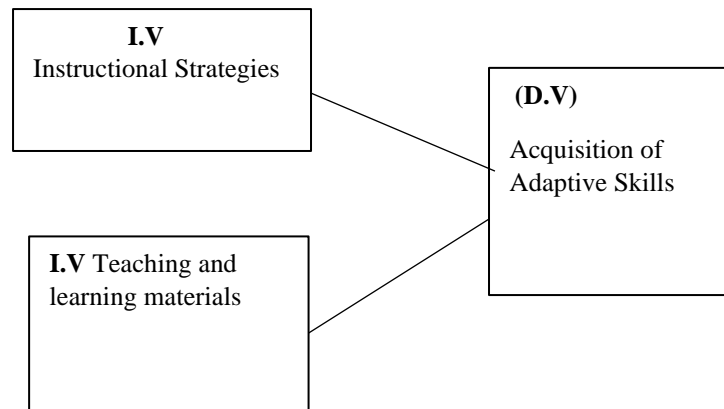
Figure 2-Flow chart on Acquisition of adaptive skills by Leaners

Source: Researchers Construct

The independent variables in this study are instructional strategies and teaching and learning materials. The dependent variable is acquisition of adaptive skills for independent living. The instructional strategies are cooperative teaching, interactive teaching, direct instruction/ teacher directed approach, task analysis, modeling, peer tutoring, hands-on –learning, play based learning, individualized education plan (IEP), discrete trial training, structured teaching, task analysis, Group learning, reinforcement, augmentative alternative communication (AAC) and assistive technology. The arrows from the independent variables pointing to the dependent variables indicate that acquisition of adaptive skills depends on the teaching methods and the teaching and learning materials that the teacher will use to teach the learners with ID.

Understanding the Meaning of Adaptive Skills

Students who learn adaptive skills within special education classrooms are more prone to be successful later in life when performing tasks independently as adults. Learning how to care for oneself is a lengthy process that the teacher and parents must spend time incorporating within daily routines in order to ensure that the child becomes independent with these skills

24

(Harrison, 1991; Wehmeyer & Schwartz, 1997). In order to ensure that these skills are taught within the classroom and taught using an evidence-based practice, it is important to understand what teachers currently know about the practice of adaptive skills. There are many ways that adaptive skills are being taught in the classroom today.

However, it is yet to be reported whether the methods teachers use to teach adaptive skills are evidence-based in nature. A study completed by Mays and Heflin (2011) discussed the impact of self-operated auditory prompts on adaptive skills within school-aged students who had autism and intellectual disabilities. The authors reported that there are many prompts that they had used in the past to increase the independence of students with disabilities in the classroom and in everyday life in the area of adaptive skills. The study began by discussing the traditional means of assisting students with intellectual disabilities by using various prompts that have been used in the past to assist students in fostering independence in adaptive skills such as physical prompting, gestures or verbal prompts, and modeling. The study discussed the need for student dependent prompts that would allow the student to gain access to a greater level of independence such as constant time delay, video self-modeling, and explicit instruction (Mays & Heflin, 2011). Adaptive skills have been the focus of many studies, yet it is still unclear what evidence-based practices are used on a daily basis in the classrooms for students with intellectual disabilities.

According to Marder and Fraser (2012) teachers use instructional strategies daily, however, it is questionable whether or not these practices are generalized to include adaptive skills. There are many developmentally

25

appropriate strategies and practices that include adaptive skills in their systematic approach, but the question remains whether the teachers use them and if so, which ones? The paradigm shift from adaptive skill instruction to academic instruction within all classrooms has greatly changed the landscape of teaching within special education, and with that change, the focus on adaptive skills has shifted as well.

Marder and Fraser (2012) maintains that, adaptive skills come from adaptive behaviour, or the conceptual, social, and practical skills that individuals have learned and use in their daily lives. These skills, in addition to Intelligence Quotient (IQ) scores, are assessed by professionals in diagnosing an intellectual disability. Intellectual disability is diagnosed when a person scores between 70 and 75 on an intelligence Quotient (IQ) test. The average IQ test score is 100. To assess adaptive behaviour, professionals compare certain skills of the individual to those around his or her age. An individual is usually diagnosed with an intellectual disability when he or she has limitations in two or more adaptive skill areas.

Okyere and Adams (2003) explain ten adaptive skill areas such as;

Self-Care: Self- care includes skills in bathing, dressing, grooming, and feeding one's self

Communication Skills: These are skills necessary for understanding and using verbal and nonverbal language. Communication is an important aspect of social skills and for integrating any individual into any social group. Many classroom instructions rely on communication instruction that enable teachers and peers to understand the need of an individual in the classroom. According to Guess, Benson, and Siegel (1985) individual with moderate to severe fall victim of the

phenomenon of 'learned helplessness' for inability to communicate their needs. Durand (1990) added that, quite a number of intellectually disabled have problem communicating verbally or have a limited vocabulary and such children can be assisted by developing appropriate gestures that they can use to express their needs.

Self-Direction: It is a skill used in problem solving, exercising choice, initiating and planning activities.

Social Skills: Social skills are the skills applying in maintaining interpersonal relationships, understanding emotions and social cues, understanding fairness and honesty, and obeying rules and laws. Persons with experience varying degrees of deficits in social skills, which can lead to isolation, stigmatization, lack of coping skills, increased maladaptive behaviors, and increased rates of Psychopathology (Matson & Hammer, 1996). These individuals experience difficulties with day-to-day activities, to an extent that reflects both the severity of their cognitive deficits and the type and amount of assistance they receive. Adequate social behavior and other adaptive skills are the foundations of personal and social adjustment in life (Mathur & Rutherford, 1996). A person's adaptive behavior requires a repertoire of social skills and the ability to use these skills at the right time and place to meet the daily demands of school, work, and life. Social skills are behaviors that help people interact with others. In school, the interaction may be with classmates, teachers, and other school staff. In later life the interaction may be with coworkers, supervisors, friends, and others that a person may meet. Children and adolescents with disabilities sometimes have behaviors that unacceptable in social interactions.

Leisure Skills: Taking responsibility for one's own activities, having the ability to participate in the community.

Home or School Living: Home living skills include the use of skills in housekeeping, cooking, doing laundry, maintaining living space. Basic skills in home or housekeeping can serve a great purpose for children with disabilities. (Isenberg, & Quisenberry, 2002) in both regular and special schools, children are given the opportunity to sweep, duster their tables and chairs, and even pick pieces of paper into dustbins. In some institutional settings and families, because of hired labour, children with disabilities may not be permitted to help in the cleaning of the house. The negative effect of this behavior is that, it makes transition to adulthood very difficult for the child who never had the chance to of performing any domestic chores (Isenberg, & Quisenberry, 2002).

Functional Academics: Functional academics involve using reading, writing, and math skills in everyday life. Those skills include telling time, counting and using money, balancing a checkbook, measurement, and understanding volume. Living independently requires some skills which are considered academic, even if they do not lead to higher education or the completion of a diploma. Those skills include math skills and language arts. The functional math skills include telling time, counting and using money, balancing a checkbook, measurement, and understanding volume. For higher functioning students, math skills will expand to include vocationally oriented skills, such as making change or following a schedule. Mathematics also offers numerous opportunities for practice. Computation ability is also required in everyday life particularly in task involving time, money and measurement for instance, making a purchase,

selecting and preparing food, using measurement as in reading a person's weight or height and using time and calendar (Deku & Gyimah, 2017).

Language Arts include reading and it begins as recognizing symbols, progressing to reading signs (stop, push), and moves on to reading directions. For many students with disabilities, they may need to have reading texts supported with audio recordings or adults reading. By learning to read a bus schedule, a sign in a bathroom, or directions, a student with disabilities gains independence. Children with mildly disabled need special help to acquire basic skills and one approach that is very helpful is the unit approach. In this approach instruction in several basic skills areas are integrated around a central theme of interest and value to the child many daily life activities can be used to practice handwriting, spelling and written expressions. Making shopping list or things to do list, leaving a note for a friend or family member and writing down a telephone number (Deku & Gyimah 2017).

Community Use: Community use skills include Shopping, using public transportation, and community services. The skills a student needs to succeed independently in the community often have to be taught in the community. These skills include using public transportation, shopping, making choices in restaurants, and crossing streets at crosswalks. Too often parents, with the desire to protect their disabled children, over-function for their children and unknowingly stand in the way of allowing their children to acquire the skills they need (Grossman, 1995).

Work: Ability to maintain part-time or full-time employment, either competitive or sheltered, ability to work under supervision, cooperate with

coworkers, be reliable and punctual, and meet work standards. (Okyere & Adams 2003).

Health and Safety: Ability to protect one's self, responding to health problem. Yekple (2008). According to him, children who have special needs are quite capable of learning, at a slower pace. A child with this type of disability should be encouraged to be independent with help from parents in dressing, grooming, and feeding him or herself. Assign chores with the child's age and abilities in mind. Demonstrate how to do a task and break it down into smaller steps. Give instructions on at a time and help when assistance is needed. Frequent feedback and praise for a task well done will build a child's abilities and confidence. Yekple (2008) reiterated that, Parents and teachers can work together to increase adaptive skills by sharing information about what a child is learning. If a student **is learning about money** at school, parents should enrich that learning at home by taking the child to shop with them. Talk about the cost of items, help the child count the money to pay, and then assist in counting the change. With concrete instruction and guided practice in adaptive skills, children with an intellectual disability can learn to take care of themselves. These skills, along with the proper support, will allow them to lead independent, fulfilling lives.

Yekple (2008) maintains that in a special education classroom adaptive skill such as toileting, washing, dressing, and feeding oneself without the assistance of others are major components of everyday learning. Teaching adaptive skills in addition to academic skills to students with intellectual disabilities has been identified as a need from parents, administrators, and teachers. The ability to access adaptive skills independently is a major

component in helping students take the right steps along their journey into adulthood, both in the educational realm and in life (Yekple, 2008).

Adaptive skills also assist the students in gaining much needed self-esteem within their daily lives because without them, students might fall prey to poor self-esteem and other psychological issues that may cause distress later on in life. In addition to self-esteem, the ability to care for oneself and make decisions about one's care also ensures that students have a better chance at being successful at gaining employment and living independently after they have finished school (Wehmeyer & Schwartz, 1997).

Independent living skills and self-care skills are components of personal independence and social responsibility within the domain of adaptive behavior. Grossman, (1995) discussed the functional definition for adaptive behaviour as "The effectiveness and degree to which the individual meets the standard of personal independence and social responsibility expected for his or her cultural group" (Grossman, 1995, p. 11). Because of this expectation, parents and teachers have been focused on ensuring that the children they care for achieve independence through adaptive skills. Teachers are teaching students adaptive skills through evidence-based practices. Evidence-based practices are research-vetted techniques that have been tested by researchers and proven to be effective (U.S. Department of Education, 2003).

Using these techniques ensures that the student is taught effectively through the use of strategies and techniques that have been tested multiple times in order to help students gain mastery of these important skills. According to the American Psychological Association (2013), "Adaptive skills are defined as practical, everyday skills needed to function and meet the demands of one's

environment, including the skills necessary to effectively and independently take care of oneself and to interact with other people" (p. 16). These skills might seem to come naturally to most adults; however, those with intellectual disabilities tend to have a more difficult time with them. These students often times are dependent on their caregivers to complete simple daily tasks that typically developing children complete independently (Grossman, 1995).

In the United States of America, Adaptive skills are taught alongside academic skills and are included on the student's Individualized Education Plan. A student's Individualized Education Plan (IEP) is a legal document that is agreed upon by all parties and encompasses the students' daily learning plan which can range from academic skills to daily needed adaptive skills. However, research suggests deficiencies in including adaptive skills within the IEP are common practice and therefore a continued deficiency into adulthood (Grossman, 1995).

Instructional Strategies Used in Teaching Adaptive Skills

Teaching of adaptive skills to learners with mild to moderate ID was aimed at making them acquire personal and independent skills. To achieve this, teachers are supposed to identify and use teaching methods which they feel will be effective for training in adaptive skills. Some of the methods which are supposed to be used in the Special Units are: team teaching, interactive teaching, direct teaching, cooperative, group teaching and peer tutoring (Marder & Fraser, 2012).

Cooperative Teaching

This involves co- teaching by two or more teachers in order to meet the special needs of a single student or small groups of students in the classroom.

32

In cooperative teaching two teachers can work on the same curriculum content. One teacher instructs in advance those students who needs assistance with vocabulary, concepts and study skills that will be required by the other teacher in the upcoming days or weeks (Bauwens, Hourcade, & Friend, 1989). In another cooperative teaching, one teacher provides an instruction in the curriculum content whiles the other teacher provides instructions in reading writing and organizational skills (Ruhl, Hughes & Schloss, 1987).

This strategy is a teaching method aimed at improving academic achievement and social acceptance of learners with ID. It involves arranging learners into cooperative learning groups. Rather than competing against one another for grades, group members will share the responsibilities for helping each other learn. The emphasis within each group is cooperation and shared responsibility. Cooperative learning arrangements promote increased academic achievements for learners with mild to moderate disabilities (Bauwens, Hourcade, & Friend, 1989).

Cooperative teaching is considered a promising instructional approach. It encourages pupils with varying strengths and abilities to work together toward achieving a common goal. It is a method in which small heterogeneous groups of learners are actively involved jointly in accomplishing an activity or assignment. The teacher will structure the task such that each pupil significantly contributes to the completion of the activity according to his/her ability (Gargiulo, 2006). It will increase opportunities for learners to experience success in school. It will also benefit all pupils by enhancing their self-esteem as well as increasing acceptance and understanding between learners themselves.

33

Direct Instruction/Teacher-Directed Approach

Direct instruction will focus on the teaching process, offering special educators' powerful methods for improving the academic achievement of their learners with mild ID. Teachers will ensure that individual learners receive assistance depending on their needs. The teacher maintains a strong academic focus and almost all available instructional time intensity. The teacher will also ensure that he/she chooses appropriate tasks for his/her learners, as well as monitoring their progress. According to Carol (1999), learners with mild ID may not benefit much from direct instruction, reason being that their short attention span, poor memory and general deficits in cognition. Teaching strategies such as IEP, modeling, task analysis among others discussed below are used to enhance learning of DLS. As the primary teaching strategy under the teacher-centered approach**,** direct instruction utilizes passive learning, or the idea that students can learn what they need to through listening and watching very precise instruction. Teachers and professors act as the sole supplier of knowledge, and under the direct instruction model, teachers often utilize systematic, scripted lesson plans (Brown, 2001). Direct instruction programs include exactly what the teacher should say, and activities that students should complete, for every minute of the lesson, because it does not include student preferences or give them opportunities for hands-on or alternative types of learning, direct instruction is extremely teacher-centered. It is also fairly low-tech, often relying on the use of textbooks and workbooks instead of computers and other devices (Brown, 2001).

Peer Tutoring

This is involvement of other students as instructional aides. Learners with mild ID can serve as tutors for younger peers. Peer teaching allows learners more opportunity for interaction and feedback from one another. To ensure success of peer tutoring programs, the teacher must   actively involve. Teachers facilitate the learning by ensuring that relevant DLS are practiced. Teachers also monitor the performance of both tutors and tutees. Peer tutoring has a potential of improving academic achievement of learners but it does not necessarily improve the self-concept of learners with mild intellectual disabilities (Pierangelo & Giuliani, 2008).

Team Teaching

In this method of teaching, staff members combine their specialized skill areas to team-teach the learners in the unit. In addition to staff members, other various professionals and paraprofessionals can be part of the teaching team. Each of the team members contributes according to his/her specialty areas. Pierangelo and Giuliani (2008) posit that utilization of team-teaching provides the child with ongoing, consistent and individualized focus in all Daily living skills. This approach enables the learner to get the right skills from the specialist teacher.

Interactive Teaching

This is a method of teaching where learners are involved in different activities during the lesson. For instance, some learners would be involved in distributing materials, others in arranging tables, while others too will be doing other class activities (Ministry of Education, 2001). The involvement will make them active and attentive. It will also make them feel appreciated. That method

35

is important because it will assist the learners to avoid being engaged in other types of behavior that would make them withdraw from the learning situations (Turnbull, Turnbull, & Wehmeyer, 2007).

Hands-On Learning

Hands-on learning is the process of using activities and other hands-on tasks to teach skills. All children and especially children with intellectual impairments learn best through this process. An example would be to do science experiments to learn science concepts. Another idea is to use play dough and make letter shapes to learn letters. Hands-on learning is also a great way to learn math. (Turnbull et al., 2007).

Play- Based Learning

Play-based learning is when we use play activities to teach cognitive skills. For example, if a child is playing with cars, we sit with the child and start playing too. While playing we use statements like "can I play with the red car? Can you give it to me?" In this way we teach skills to the child while he or she is playing (Turnbull, Turnbull, & Wehmeyer, 2007).

Applied Behaviour Analysis

Applied behavior analysis is an intervention strategy used by teachers to increase the occurrence of desired behavior and decrease undesired behaviours in all learning situations. This method relies on the direct, repeated measurement and recording of observable behaviors targeted for change. This strategy helps the teacher to remain focused and work on the targeted skills only (Rutere, 2013).

36

Individualized Educational Programme (IEP)

This is a strategy that assists teachers to enhance teaching adaptive skills through addressing individual learner's needs. It spells out where the child is, where the child should be going, how the learner will get there, how long it will take and how to tell if the child has arrived (Friend, 2008). The learner with intellectual disability (ID) is assisted according to his/her individual needs and abilities.

Modeling

Modeling is learning by observation and imitation. Modeling is also referred to as observation learning, copying or even role playing. Modeling involves observation, imitation and copying. It incorporates such processes as attention phase, retention phase, reproduction phase and motivation phase (Turnbull, & Wehmeyer, 2007).

Discrete-Trial Training

This strategy is mostly applicable when teaching new DLS skills. It is mostly applicable in teacher-directed methods. It involves presentation of a stimulus or teacher's instruction, and then learner's response is followed by a consequence in each trial. A correct response is reinforced with praise or a tangible reinforce, while incorrect responses result in correction such as verbal feedback or physical guidance. This type of strategy generally includes multiple trials in teaching a specific DLS (Brennan 1987).

Structured Teaching

This is an intervention strategy developed by the University of North Carolina, US. It involves understanding of the unique features and characteristics of learners with ID, learner's environment, developing

appropriate learning activities and teaching of DLS skills through various teaching methods. This strategy also involves helping learners with ID understand what is expected of them. Pierangelo and Giuliani (2008) stresses that structured teaching greatly enhances a learner's acquisition of DLS for independent functioning which will assist him/her throughout life.

Task Analysis

This is a teaching strategy which involves breaking complex tasks down into subtasks and reinforce in small, teachable steps (Turnbul & Turnbul, 2007). In teaching adaptive skills to learners with ID, the sub-skills may need to be taught and reinforced in sequence, for easy mastery of the skills.

Chaining

Chaining is the process of breaking a task into its small steps and teaching them in a sequential manner. It is usually used to teach daily living skills and life skills. For example, we first teach a child to hold a pant with two hands, and then we teach him to hold it and bring it down to his legs. Next, we teach him to hold it, bring it down to his legs, and put one leg inside. This process is called forward chaining. Backward chaining is when you teach the child the last step first. We do the activity of the child and let the child do the last step on his own. Then we do the activity till the second last step. In this way the child does more and more of the activity and we do less till the child can do the whole activity on his own. Chaining is an instructional strategy grounded in Applied Behavior Analysis (ABA) theory (Turnbul & Turnbul 2007). There are two types of chaining techniques (Turnbul & Turnbul 2007).

Forward chaining: The forward chaining technique move a child from the first part of the task to the end. In short, each step must be mastered.

Backward chaining technique: This involves the same process as forward chaining, except in reverse. That is, the teaching process moves from the last part of the task to the beginning.

This technique is used when it is easier to teach a child a task from the last step than from the beginning.

The Steps in Forward Chaining are:

1. The teacher teaches the child the first step in the chain.

2. When the first step is learned, the teacher adds the second step.

3. The child is learning the second step in the routine and attaching it to the first step. The third step is taught in conjunction with the first two steps once the child is able to demonstrate the first two steps. (Meador, 2018).

The Steps in Backward Chaining are:

The steps in backward chaining mirror those of forward chaining except they occur in reverse. The teacher provides the child assistance throughout the process until the last step.

1. The child is encouraged to complete the last step independently.

2. When the last step is mastered, the teacher provides assistance until the child is able to perform the step before the last one.

3. The child completes more and more ending steps independently until he masters all steps and is able to complete the task without assistance. (Meador, 2018)

Group Learning

Group learning is one of the most effective teaching strategies for students with intellectual disabilities. It is when you bring children together in

a group to teach various skills. Children often do better when they are in a group. Behavior difficulties are less, and children motivate each other. The only difficulty in group learning is that you need enough hands to help children learn together (Angelo, 1997).

Positive Reinforcement

Positive reinforcement is to reinforce the child positively every time he learns a new skill, or performs or practices a known skill. It is a great way to motivate children with intellectual disabilities. Use reinforcements that are appropriate for the child (Angelo, 1997).

Augmentative alternative communication (AAC)

AAC is one of the best strategies in teaching children with intellectual disabilities. It is an umbrella term that encompasses the communication methods used to supplement speech or writing for those with impairment in the production or comprehension of spoken or written language. Angelo (1997). Many students who have ID or DD also have complex communication needs (CCN). Some students may not use speech to communicate. Others may not have reliable speech, that is, speech that consistently and accurately reflects the message the speaker wishes to convey (Broderick & Kasa-Hendrickson, 2001).

Some students may have reliable speech, but their speech may be difficult for others to understand. Teaching literacy skills to a student who is not verbal or who has unreliable speech can seem daunting. As teachers, we often expect students to communicate their knowledge through speaking, particularly as students learn to read. Think about how you would work with a typically-developing kindergartener on letter sounds. You would likely show the child a

letter on the chalkboard or on a flashcard and ask the child to respond orally with the sound of the letter.

Similarly, when meeting with a student to assess his or her reading ability, you would likely want to hear the child read a passage so you could make note of his or her strengths and struggles during oral reading. How then, can a teacher approach such important learning activities and assessments when working with a child who does not speak? How could the child show a teacher his or her competence in reading? How can a teacher determine a child's understanding as new skills are taught? Augmentative and alternative communication (AAC) refers to the techniques and supports used by individuals with limitations in spoken language to enhance their ability to communicate. While these supports are often bundled under the term AAC, there are important differences in augmentative versus alternative communication.

Augmentative communication refers to the techniques and supports used in addition to speech, spoken sounds, or gestures, while alternative communication refers to techniques or supports used in place of speech and gestures (Copeland & Keefe, 2007). Numerous options for AAC exist, including "manual sign language, as well as non-electronic and electronic communication devices and software options" (p. 132), which vary in complexity (e.g., high-tech, low-tech) and expense. A common high-tech AAC device used by students is the Dynavox, which is a computerized touchscreen that allows users to select words and symbols indicating what they would like to communicate. The device, in turn, speaks out these choices digitally. Lower-tech supports might include teacher-created boards with letters, numbers,

41

and/or pictures made with clip art to which students can point to communicate their needs and responses. (Hasbrouck & Tindal, 2006).

According to Hasbrouck, & Tindal (2006) Students with ID and DD can often benefit from AAC in literacy learning. In deciding which AAC supports to use, a teacher must consider the particular needs of each student. Not all supports or devices will be appropriate for all students with disabilities. It would not be appropriate, for example, to require a student to use a particular support simply because it is less expensive or already on hand. In addition, some students with limited speech may already be making use of certain AAC devices in their daily lives. If this is the case for a particular student, finding a way to incorporate that device into the child's literacy learning will be of utmost importance. For students who have difficulty with reliable speech or producing speech that is readily understood by others, finding a way for the students to communicate their knowledge without the need to speak can be beneficial. The ways in which Augmentative Alternative Communication (AAC) can be used to supplement and enhance a student's literacy learning are innumerable. Several examples will be given throughout the next section on comprehensive literacy instruction for students with ID and DD (Hasbrouck & Tindal, 2006).

Assistive Technology

The use of real materials or actual tools in natural environments is an essential component in the effective instruction of students with intellectual disabilities. Although these materials would be labeled as "low tech" teaching resources, they serve to both motivate the student and facilitate generalization to multiple environments. In other words, a high school student would use a

42

calculator to work math problems whereas an elementary student may be more likely to use counting blocks (Pierangelo & Giuliani, 2008).

There is a number of existing software packages designed to support students with intellectual disabilities in the classroom. One promising approach in literacy software utilizes universal design for learning principles. This approach combines reading for meaning with direct instruction for decoding and understanding. The resulting software consists of an audio and video-based curriculum that can be adjusted by the teacher to meet the specific academic capacities of the student. Ultimately, any learning software that can tailor content to address the interests of the student can be useful in supporting learning with individuals with intellectual disabilities, given that the instruction can be adapted to meet the needs of the individual (Pierangelo & Giuliani, 2008).

Summary of Instructional Strategies

No single instructional strategy for teaching learners with mild ID is successful for all learners. Since learners with ID have diverse learning needs, most teachers need to apply different methods so as to meet their individual unique needs (Pierangelo & Giuliani, 2008). These are just a few effective teaching strategies for students with intellectual disabilities. The best way to teach, however, is to understand the child, understand his abilities and his needs. From there comes the natural selection of strategies and methods that fit him or her. To fully address the limitations in intellectual functioning and adaptive behavior often experienced by individuals with intellectual disabilities, teachers need to provide direct instruction in a number of skill areas outside of the general curriculum.

These skills are more functional in nature but are absolutely essential for the future independence of the individual. Additional skill areas include money concepts, time concepts, independent living skills, self-care and hygiene, community access, leisure activities, and vocational training. Students with intellectual disabilities learn these skills most effectively in the settings or activities in which they will be asked to apply these skills. Once the skills are mastered, then additional environments can be added to work towards generalization. General curriculum areas should not be neglected however, and there are some promising practices to help support these students in a number of academic areas. One effective early literacy strategy with these students is pre-linguistic milieu teaching. Fey et al., (2006) stated that, a technique that ties instruction to the specific interests and abilities of the individual child. This language acquisition instructional strategy also helps support effective self-determination, as a key component of the training is frequent requesting behavior from the student.

Breaking down larger tasks into their specific component parts can be an effective technique for teaching any number of skills to students with intellectual disabilities. More complex concepts or activities can then be taught over time, and as the student master one component of the task, another is added to the routine. This type of task analysis can be taught using a variety of instructional supports, from physical and verbal prompting to observational learning. As always, the specific instructional strategies and materials used with the student should be aligned to the student's own interests and strengths (Fey, et.al, 2006).

Useful strategies for teaching students with intellectual disabilities include, but are not limited to, the following techniques:

1. Teach one concept or activity component at a time.

2. Teach one step at a time to help support memorization and sequencing.

3. Teach students in small groups, or one-on-one, if possible.

4. Always provide multiple opportunities to practice skills in a number of different settings.

5. Use physical and verbal prompting to guide correct responses, and provide specific verbal praise to reinforce these responses.

Kaurs (2005) demonstrated that the use of pictorial self- management to teach DLS effective. When picture order was manipulated by learners, they were able to follow the new picture sequence, suggesting that the pictures controlled their behaviour (Rutere, 2013) also argued that teaching of Self - Help Skills (SHS) to parents so as to train their children with ID using Behaviour Modification showed that children acquired self-help skills. Twenty-one of the children acquired SHS as a result of being taught by their parents. The study also showed that the skills remained even after the tangible reinforcers were removed. Another study carried out by (Rutere, 2013) involved three children with brain damage (two with Down syndrome, one with an unknown etiology).   The three were exposed to a poorly trained attendant. After a short time, these children did not show any improvement in SHS. The Graduate student (professional) trained the same learners and they acquired the skills within a few months. Yet another study in the same place involved eight girls, all roughly 10 to 12 years of age. One girl had a serious problem. She continually used others toothbrushes as she could not remember the color of

hers. The graduate student and the house mother trained the girl and she was able to recognize her toiletries (Rutere, 2013).

To make methods of teaching effective, teachers need to use various strategies such as IEP, Task analysis, Visual approaches, modeling, and reinforcement among others (Klein & Cook, 2001). Evidence suggests that learners with disabilities and learning problems most frequently do best in structured programmes where effective direct teaching methods are employed. In particular, (Kamuri, 2005) asserted that learners with ID require an environment which is well organized and a programme which is presented clearly and with abundant opportunities for success. Other research-proven strategies such as Video Prompting may be used to teach adaptive skills to learners with ID (Cannella-Malone et al., 2011).

In addition to instructional strategies and concrete learning materials, trained teachers particularly in schools for intellectual disabilities should approach the art of teaching adaptive skills critically and reflectively. They should be innovative, open minded and altruistic, willing to take risks with themselves and their learners. They should be capable of making critical judgments about skills for individual learners (Cannella-Malone et al. 2011). As experts, they should use relevant and best methodologies to impart skills for independent living to their learners. In addition to using research-based practices, these teachers are guided by their professionalism to use other methods not guided by scientific knowledge but which depend on individual judgments based on personal experiences, as Gage (1984) describes the art of teaching as:

"An instrumental or practical art that requires improvisation,

spontaneity, handling of hosts of consideration of form, style,

pace, rhythm and appropriateness in ways so complex that even

computers must, in principle, fall behind, just as they cannot

achieve what a mother does with her five-year-old or what a

lover says at any given moment to his or her beloved (p. 6)".

For the above to take place, teachers who teach adaptive skills must be effectively trained (Friend, 2008). Trained teachers are, therefore, aware of the adaptive skills needed by their learners than anybody else. They also have wisdom of other prerequisites of those skills. Most challenges they face while teaching adaptive skills in their classrooms are characterized by their uniqueness. This makes teachers take their learners as unique individuals and solve their individual problems accordingly. On the contrary, untrained teachers lack understanding of the methods of teaching and intervention strategies.

According to Kaur (2005), such teachers lack "integrity" of the teaching profession. He argues that teachers without proper knowledge of teaching methods underestimate the power of intervention strategies. Compares this characteristic of untrained teacher to watering down antibiotics and then try to evaluate their effects on children's illnesses. Teaching strategies are therefore important in teaching adaptive skills to learners with ID (Kaur, 2005).

Instructional Materials

Many attempts have been made as the definition of instructional materials is concerned as it is a phenomenon in teaching and learning process without which effective delivery of lesson may not be attainable. However, Aniemeka (2005) defined instructional materials as those materials and objects

47

with instruction or curriculum values which could be used to facilitate teaching and learning in the process of instruction. He further stressed that instructional materials do not consists of only those items or materials that the teacher alone can handle but inclusive of every material which the learner also, individually could use to facilitate learning. This could either be in the classroom or out of the classroom. Salawu (2000) state that instructional materials are essential instructional materials usage of teaching aids, increase interaction between the teacher and the learner. There are some that are optional while some are obligatory optional media selected by the teacher as a matter of personal conviction provided. Obligation media are instructional materials which are highly required for effective teaching and learning process. All instructional materials are usable in realization of cognitive however are best realized by audio materials picture films, television, simulators. The psychomotor objective is best realized by audio materials, large models of reality simulators, field excursions, visits etc. Kirk et al. (2001) also stress that instructional materials are learning materials used in the classroom to complement teaching method to enhance learning. Instructional materials are the materials the teacher could use to pass information, message to the pupils. Instructional materials are those resources employed to provide the richest possible teaching learning, interaction between the teacher and the learner by promoting effective communication process. In the light of this above definition, the children with intellectual disabilities are not exempted from the use of instructional aids. Although, these children have a low IQ, which make their learning slow, they need instructional materials to facilitate learning as well as making learning permanent.

48

Types of Instructional Materials

Ogunleye (2014) stated that instructional materials could be audio, visual, audio-visual, hardware, software and host of other terms. Audio media are teaching devices that mostly appeal programme and audio recordings such as cassettes are devices like the telephone and walkie-talkie. According to Ogunleye (2014), visual media mostly appeal to the visual sense. In this category, we have such device like pictures, diagrams, photographs; three dimensional objects projected still pictures such as slides, film strips. Also, there is an audio-visual media which are instructional devices that have the capacity to provide the feature of audio and visual media simultaneously. Typical media in this category are the television, video-tape programmes, recordings, sound films, films strips and slide with synchronized sounds. Koech (1999) identified projected media on hardware and software as types of instructional materials. According to him, projected media consists of materials containing information which can only be meaningful and effective only when projected on the screen using projection equipment that require electric power supply. These projection equipments are usually referred to as projectors.

There is a film strip projection, opaque projectors and overhead projectors Overhead projector is commonly found in the classrooms. It is designed to perform the traditional roles of chalkboard. Thus, it is regarded as an instructional medium by design rather than instructional medium by utilization.

Non-projected media, according to Koech (1999) are instructional materials that can be used without having to resort to any projection process unlike the projected media hardware an instructional material which is used to

extract information from software. Hardware include such gadgets like television set, monitors, disc player, camera and computer Software are also used to describe all the materials that carry the message, information content and it include video tapes, cartridges, audio, tapes, films, slider, diskettes. Learner's factor also needs to be considered in the choice of instructional materials. There are certain media that are best suited for large audience while there are those for small audience or even individuals. Instructional materials to be selected should be borne out of consideration for the learners. According to Salawu (2002), selection criterion should include such variable like quality of production, ease of use compatibility and availability. The source of teaching aid could be viewed against the seemingly different academic ability of the learner. The source of teaching aid could be viewed against the background of design utilization. Instructional materials by design are those that are provided genuinely for the purpose of instructional usage such as overhead projector, charts, text books and slides. Instructional materials refer to those devices which teachers use in the process of instruction. According to Olawale (2000) there are several sources of obtaining instructional materials among which are direct purchase, improvisation, and loan and through donation.

Category of Materials

Babatunde (2000) categorize instructional materials as audio, visual and audio-visual materials. Visual materials are instructional materials that could be seen with our eyes. They help to clarify our message to the learner. They are devices used in presenting knowledge through the seeing co-experience. Factors influencing the effectiveness of visual materials are familiarity, scale and color. Audio materials are teaching devices which can be heard and it

includes records, record players, tape recorders and radio. He explained that audio visual media are devices which call for actives use of five senses of learning.

Importance of Teaching Strategies

Kaur (2005) highlights the following importance of teaching strategies;

Instructional strategies provide a delivery mechanism for presenting great content

Instructional strategies are the how, and content is the what. In many cases, how you present the content is more important than what you present. Students latch onto content that is packaged in an interesting and engaging way. A lack of a great delivery system will fail to make connections with even the most interesting content.

Instructional strategies provide teachers with the flexibility necessary to meet individual learning needs

The number of instructional strategies at a teacher's disposal provides flexibility to differentiate instruction. What works well for one group of students may not necessarily work well with another. Teachers must adapt to each group and utilize multiple instructional strategies to maximize their effectiveness.

Instructional strategies can make teaching and learning fun

The majority of students learn best through active, engaging learning opportunities. Many instructional strategies embrace this and feature components that ensure that learning is fun and engaging. Teachers must make every effort to feature instructional strategies that keep students engaged, on their toes, and wanting more.

Instructional strategies, when used correctly keep students from becoming bored with how they Learn

When a teacher uses the same strategy over and over again, it becomes boring to students. This is a great way to cause students to lose focus and interest in learning. When a teacher varies activities, changes them up, and uses a wide range of instructional strategies students stay engaged, ultimately helping them learn more.

Instructional strategies enhance instruction and boost learning

When teachers are continuously exploring and tweaking their delivery system, a beautiful thing happens. Over time, they become more effective at not only finding great instructional strategies but also with implementing them into their class. Likewise, when students are exposed to a variety of instructional strategies it broadens the scope of how they learn essentially giving them multiple ways to process and learn new information (Friend, 2008).

Teaching and Learning Materials (TLMs) for Enhancing Teaching Methods

Ideally, TLMs cultivate motivation in the learners and make them active participants in learning. TLMs capture and maintain learners' attention, help them understand what is being taught, as well as learn new skills. Learners with ID require materials over and above what is already being provided by the school. Friend (2008) asserts that selection, adaptation and development of educational learning materials for learners with ID should be guided by ability level of the learner, age, educational needs, interest of the learner, activity to be done and also the objectives of the activity. Learning materials may be

52

expensive, shop-bought equipment or can be made from locally available materials.

Moreover, it is important to note that all learners especially those with ID need materials which they can touch, feel, see and even play with. They need concrete materials for concept formation. The materials should reflect their functional curriculum and therefore, such themes as personal care, feeding, care of the home, food selection and preparation, safety and security, recreation and leisure, money, health and HIV and AIDS require concrete and situational materials Friend (2008). The question of adequacy and appropriateness in teaching DLS to learners with ID is not supposed to arise. Most of these materials are very expensive and others are not locally available, it is uncertain that special units have appropriate materials for all learners. It is also likely that lack of appropriate teaching and learning materials may affect the effectiveness of teaching methods in DLS implementation to learners with mild ID. This study will therefore be established if teaching /learning materials may affect teaching of DLS to learners with ID.

Challenges in Teaching Adaptive Skills

The challenges discovered in the literature regarding the teaching of adaptive skills included but not limited to TLMs inadequacy, negative attitudes and lack of trained personnel.

Teaching and learning materials

The teaching of adaptive skills to learners with ID has its own challenges. In most of units, teaching/learning materials (TLMs) are lacking which implies that training of adaptive skills is threatened. According to the National Action on Education for All 2003-2015 in Kenya, due to limited

funding, school administration may not be able to procure enough TLMs to enhance teaching of DLS.

Negative attitudes

Because of free education, Teacher-student ratio is high. Negative attitude from both teachers and school administration play a significant role in the teaching of DLS to learners with ID. According to McMary and Sarah (2005), Negative attitude makes the teacher feel detached from the learners. This limits the teacher's attachment and interest in teaching adaptive skills to learners with ID, hence they continue being dependent on other people.

Trained personnel

Other challenges experienced when teaching adaptive skills to learners with ID is lack of trained personnel. Teachers who are not trained in the area of ID may not understand their learners' characteristics hence not applying teaching methods or even strategies effectively. In extreme cases, ignorance concerning disability can result in quite damaging prejudice, hostility and rejection (Friend, 2008). This is even more serious if the disability is ID because of its characteristics of deficits in both adaptive behavior and IQ. Friend, (2008) Koech's Report (1999) summarises the challenges encountered in teaching when he asserted that there is nothing more unequal than the equal treatment of unequal. The report asserts that the quality of the service for children with special needs is adversely affected by acute shortage of specialized aids and equipment, specialized personnel, inappropriate curriculum, insufficient institutions and programmes, lack of coordination and unity of purpose between and among service providers, inadequate support staff, an absence of clear

54

policy guidelines, lack of legal status on special education, provisions, laxity on the side of government to fund special education materials among others.

Theoretical framework

This study was guided by two theories. These were: The Social Learning Theories by Bandura (1977) and Skinner (1938) a proponent of operant conditioning. These two theories relate to acquisition of adaptive skills by learners with ID.
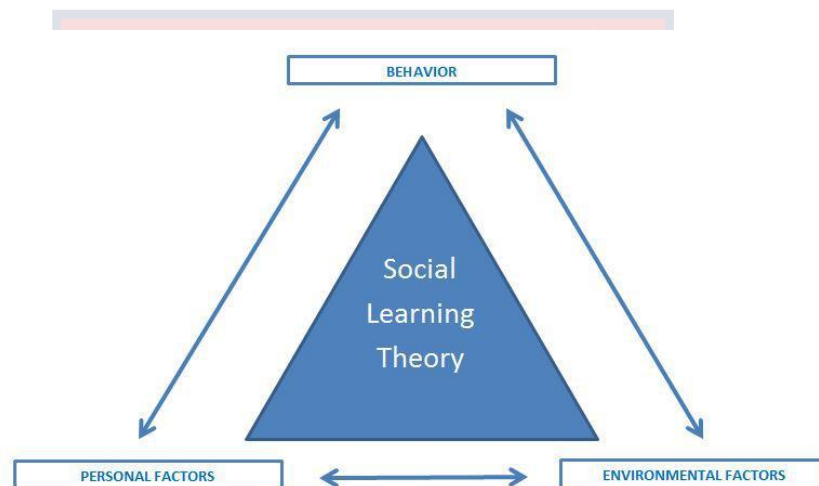
Figure 3-Social Learning Theory

According to Bandura (1977), "human beings are influenced by their environment" (p 140). This means that, learning involved both external reinforcement and internal cognitive explanations of learning. These account for how we learn from other people. Human beings are social animals. Through interaction and observation, enormous amounts of information and complex skills in the environment are learnt. In social learning theory, there is immediate association of the model behaviour through visual coding of the model (Kirk & Gallagher, 1989).

Social learning theory supports the model principle which states that learners are likely to pay more attention to models with high status, high

competence and expertise attributes which teachers are often thought to have. That depicts the personal factors there. A teacher models the desired behaviour such as eating, table manners, socializing, and assists his/her learners to imitate. The theory encompasses attention (attention paid to the model), retention (remembering what you paid attention to), reproduction (reproducing the image, including physical capabilities) and motivation (having a good reason to imitate-promised incentives and vicarious learning. (Kirk & Gallagher, 1989).

According to Skinner, an organism is in the process of "operating" on the environment. During this "operation", the organism encounters a special kind of stimulus, called a reinforcing stimulus, or a reinforcer. This special stimulus has the effect of increasing the operant (the behaviour just before the reinforcer). That is, the behaviour is followed by a consequence, and the nature of the consequence modifies the organism's tendency to repeat the behaviour in the future. If the behaviour is followed by a rewarding or positive consequence, the behavior tends to be strengthened. In teaching learners with ID, teachers can apply this theory in classroom situation (Kirk & Gallagher, 1989).

Learners can eagerly learn adaptive skills (AS) simply because they expect to be rewarded. In classroom situation, teachers can use tangibles to reward learners. Shaping is a behaviour modification which involves reinforcing successive approximations to a behaviour that is beneficial to them. In training a skill using task analysis for instance, shaping can be applied after every step and the learner with ID may learn the skills fast. If teachers applied shaping and schedules of reinforcement to their learners depending on their individual needs, they would learn skills of daily living and would also tend to

56

repeat the rewarded behaviour, hence acquire the adaptive skills (Kirk & Gallagher, 1989).

Special education teachers are supposed to create a conducive environment for their learners to benefit from social learning. Self-efficacy is also an important concept in Bandura's social cognitive theory. Self-efficacy refers to people's judgment of their capabilities to organize, execute and accomplish certain performances Teachers are supposed to be sources of self-efficacy for their learners by giving ability-related activities for the learner to experience success, provide positive vicarious experiences, verbal persuasion and emotional arousal. The presence of such environment would enhance acquisition of adaptive skills by learners with ID (Kirk & Gallagher, 1989).

Empirical Review

This aspect of the review focuses on previous studies conducted on the relevant objectives of the studies. The studies served as a relevant foundation for inferences and discussion.

Adaptive skills that teachers teach students with intellectual disabilities

Kroeger and Sorensen (2010), created an experimental study about toilet training that included participants with intellectual disabilities with additional behavior problems. The participants were a four-year-old boy who had an autism spectrum disorder along with an intellectual disability with no prior history of toilet training, and a six-year-old boy with autism and an intellectual disability who had made multiple attempts at toilet training prior to the study. A three-year follow-up study was completed, and the students showed maintenance of the behavior and had not had accidents at any time during the maintenance period with little to no incidents of behavioral issues. Kroeger and

57

Sorensen study showed that toilet training is an important adaptive skill that can be taught.

Moreover, a study completed by Taube-Schiff and Serbin (2006), discussed teaching functional skills in a single subject design to a 2 ½-year-old child diagnosed with a significant developmental delay. His cognitive level was measured to be at 12 months of age, and he was unable to feed himself without the assistance of a caregiver. Once daily the researchers conducted trials at dinnertime in the participant's home. The researchers collected baseline data during these visits. Once the baseline data was collected, the researchers and parents implemented a graduated guidance plan, which simply placed several single skills together to form a more complex skill. At the completion of the study, the student was eating independently. The study has however shown that self-feeding is a problem for most children with intellectual disability and it can be taught as an adaptive skill.

Furthermore, Gardner and Wolfe (2015), took the rapid dressing method research a step further and discussed evidenced-based practices that would assist those with disabilities with being able to complete adaptive skills independently. The use of point-of-view modelling is the use of video prompting along with error correction. Through the use of video and point-of-view modelling, the student experiences the skill in the first-person point of view, as if actually seeing it for him/herself as the skill is being completed. After using the aforementioned approach to teach the participants how to dress, data showed that, after the completion of the study, all the four participants gain the skill to dress independently. Like self-feeding and toileting, dressing is also an adaptive skill that Gardner and Wolfe study has shown that it can be taught.

Instructional strategies teachers use in the teaching of adaptive skills

Kuyini and Abosi (2011) explored instructional strategies that teachers use in teaching adaptive skills. After data collection and analysis, the study revealed that adaptive teaching strategies such as explicit teaching, cooperative learning, and social skills instruction enhance learning outcomes of street children and should be adopted for other categories of children with SEN.

Kauffman and Hung (2009) in a systematic review sought to explore first, what should be taught to such students and who should teach them? After a thorough review of literature on the issue of what should be taught to children with learning disabilities and how they should be taught, the study concluded that children with intellectual disability should be taught adaptive skills. Further, the review also concluded that direct, systematic instruction in reading, arithmetic, and daily living skills is the most effective approach to teaching students with intellectual disabilities.

Konrad, Joseph and Eveleigh (2009) in a systematic review also sought to identify effective methods for teaching writing to students with intellectual disabilities. After criteria were established, database searches and hand searches of selected peer-reviewed journals were conducted. Writing instruction effects on various written expression outcomes were aggregated by averaging percentage of non-overlapping data (PND) across studies. Findings revealed that strategy instruction was investigated more frequently than other types of approaches. Strategy instruction was consistently found to be very effective for teaching writing skills to students with intellectual disabilities.

Brooke and Solomon (2001) studied the usefulness of hands-on activities in a discovery setting, regarding science concepts learning by students

59

with intellectual disability. According to the results of their study students with intellectual disability (e.g. Down syndrome), who were engaged in playing with the exhibits in an interactive learning center having enough time and with only a few instructions, showed a certain level of concentration, and even searched for the causes of the phenomena they observed. More-over, the teachers observed that, although in the school con-text the same children performed certain activities associated with direct teaching practices, in the con-text of the interactive learning center, where their interaction with the exhibits was promoted, they seemed to develop curiosity and creativity.

Teaching and learning materials relevant for the teaching of adaptive skills

Akakandelwa and Munsanje (2012) explored the available teaching and learning materials in special basic and high schools in Zambia. A survey approach utilizing a questionnaire, interviews and a review of the literature was adopted for the study. The findings demonstrated that most schools in Zambia did not provide adequate and suitable learning and teaching materials to pupils with visual impairment. Further, many schools did not have resource rooms for storage and use of learning and teaching materials for these pupils. Though most schools have a policy for procurement of learning and teaching materials, their budgetary allocations for such activities are usually too small or non-existent. Consequently, the TLMs found were few audio and visual materials.

Puri and Abraham (2004) emphasize that classroom need to be colourful, interesting, for learners to feel enthusiastic about coming to pre-school centers. For easy access, ramps (for children with physical disabilities), hand-rail (for children with visual impairment), Braille for reading and writing and wheel-chairs are needed. A mug and a bucket of water too may be kept

outside the classroom to ensure that learners maintain basic hygiene by washing their hands after playing outside. These materials are much needed to help promote the teaching of adaptive skills such as keeping personal hygiene (e.g. washing of hands regularly) Eleweke and Rodda (2002) noted that social facilities to accommodate learners with special needs are often non-existent or inadequate in many institutions. Few facilities may be found within the urban centers but none in rural areas.

Adeogun (2001) discovered a very strong positive significant relationship between instructional resources and academic performance. According to Adeogun, schools endowed with more materials performed better than schools that are less endowed. This corroborated the study by Babayomi (1999) that private schools performed better than public schools because of the availability and adequacy of teaching and learning materials.

Challenges that teachers encounter in the teaching of adaptive skills

Ruteree (2013), investigated challenges encountered when teaching Daily living skills (DLS) to learners with Mental Retardation (MR). Using a descriptive research design, 84 teachers and head teachers and learners in a Special Unit School in Kasarani sub-county, Kenya were targeted for the study where all those in the population were used because they were relatively smaller in number. In all, questionnaires were used to take data from 20 teachers and head teachers while the 64 learners with MR were observed by the researcher as he fills a checklist concerning the activities, they (learners) perform. Findings revealed that the critical challenges facing head teacher and teachers was lack of capacity to specifically cater for learners with MR. In addition, the findings revealed that head teachers and teachers lacked organizational competence and

61

positive attitude which are exemplary in effective and sustainable teaching and learning process among learners with MR.

Lynberg (2018) explored teachers' perspectives about their experiences in teaching children with intellectual disabilities adaptive skills. A quantitative, cross-sectional design was used, and an online survey was completed by 254 special education teachers. The participants that completed the survey were 93% female and on average had 14 years of teaching experience. The survey gathered teachers' opinions about adaptive skills. Teachers reported that they had very limited opportunities for educators to attend professional development about adaptive skills.

Adebisi, Jerry, Rasaki, and Igwe (2014) emphasized that the successful education of students with special needs requires the involvement of the different professionals, who will be of assistance in the areas of identification, referral, diagnoses, treatment and provision of appropriate educational services. His study revealed that most special schools habour teachers who have not been specially trained to teach persons with disability.

Chapter Summary

Adaptive skills are vital to all human beings. Learners with ID do not acquire them normally as their non-disabled counterparts. The child with no apparent disability acquires these skills normally as they go through developmental milestones. Due to their condition, learners with mild ID delays in development and also in acquiring these skills. They acquire adaptive skills through training or being taught by teachers in schools. Some of the methods that teachers may use to teach adaptive skills are: Interactive, cooperative, direct instruction, peer tutoring and team-teaching. Most trained teachers make their

teaching effective by accompanying teaching methods with various teaching strategies such as task analysis, modeling, structured teaching, discrete-trial training and applied behavior analysis, play based learning, chaining, hands on learning and baby steps. Teaching and learning materials have also been reviewed in this section.

Different studies indicated that learners with ID require concrete learning materials to facilitate their concept formation (McMary & Sarah, 2005). Hindrances to acquisition of adaptive skills by learners with ID have also been reviewed. Some of the challenges affecting implementation of DLS to learners with ID are inadequate trained personnel, large classes which do not match available educational facilities, and inability to procure enough T/LMs to enhance teaching of DLS. Several studies indicated that learners with ID can acquire DLS if teaching methods and strategies are applied effectively.

63
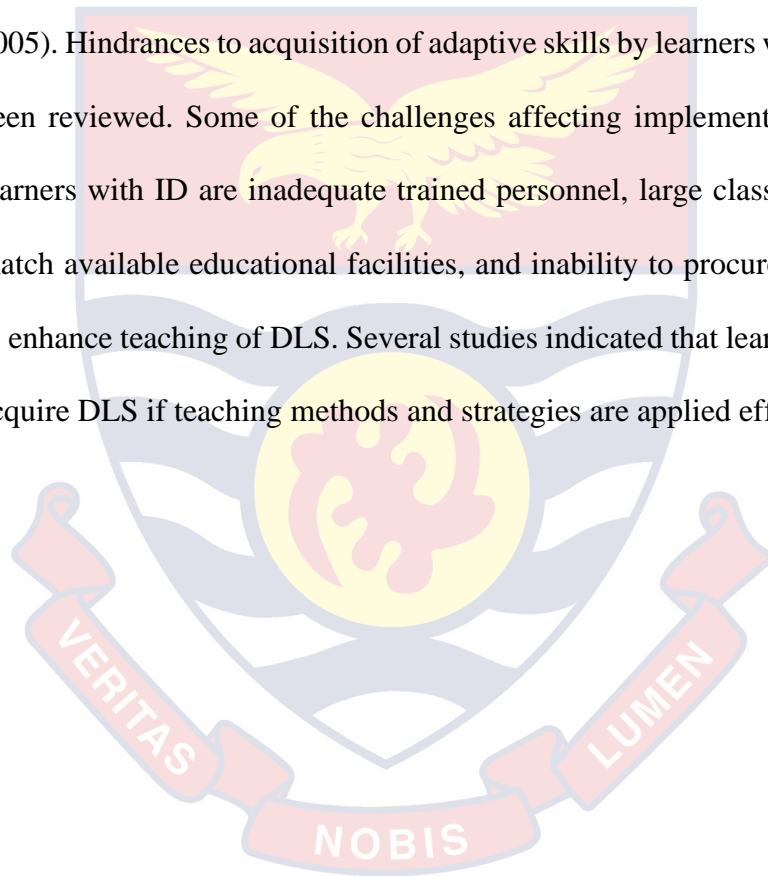
CHAPTER THREE

RESEARCH METHODS

Introduction

The chapter discusses how the study was conducted. It discusses research design, population and sampling procedure. Again, it covers the research instruments (including the pre-testing that was done) used and the data collection procedure. Finally, how the data was collected and analysed has also being explained.

Research Design

Research design is a researcher's overall plan for obtaining answers to the research questions or for testing the research hypothesis (Amedahe & Asamoah-Gyimah, 2016). Burns and Grove (2003, p. 27) define a research design as "a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings". Parahoo (1997, p. 28) describes a research design as "a plan that describes how, when and where data are to be collected and analyzed". In other words, the research design articulates what data is required, what methods are going to be used to collect and analyse the data, and how all of this is going to answer the resurface question.

The study was guided by descriptive cross-sectional survey design. The study was quantitative and for that matter collection of data and analyses of data was done. The study was conducted at a given point in time and was not a continuous study. In this regard, the study participants were approached once during the data collection (Creswell & Poth, 2017). The design was used

64

because the researcher intends to sample respondents' perspective about effective instructional strategies for teaching students with intellectual disabilities adaptive skills.

Again, the researcher desires to collect information on respondents' view about relevant adaptive skills to be taught and the teaching and learning materials that assists them in the implementation of the individualized Education Plan (IEP) for students with intellectual disabilities within the Unit Special Schools.

According to Burns and Grove (2003, p. 201), a descriptive research "is designed to provide a picture of a situation as it naturally happens". It may be used to justify current practice and make judgment and also to develop theories. Amedahe and Asamoah-Gyimah (2016) described descriptive research as a type of resurface which specifies the nature of a given phenomenon.

The purpose of descriptive research is to observe, describe, and document aspects of a thing as it naturally occurs. The reason for employing cross sectional survey in this study was because, cross-sectional surveys are studies aimed at determining the frequency (or level) or a particular attribute, such as a specific exposure as in effectiveness of instructional strategies. In this type of study, subjects were contacted at a fixed point in time and relevant information were obtained from them. On the basis of this information, they were then classified as having or not having the attribute to interest.

A descriptive survey is a non-experimental design which measures the characteristics of a sample at one point in time (Muijs, 2010). Surveys are traditional ways of conducting research. They are particularly useful for descriptive designs that seek to describe reality. Descriptive surveys tend to be

cross-sectional. Cross sectional surveys are surveys that are carried out at a just one point in time. They provide a snapshot of what is happening in that group at that particular time.

Survey research involves acquiring information about one or more groups of people, perhaps about their opinions, characteristics, attitudes, or previous experiences, by asking questions and tabulating the answers. The ultimate goal is to leaner about a large population by surveying a sample of it (Leedy & Ormrod, 2005). In other instances a survey is viewed as the research method used to structure the collection and analysis of standardized information from a defined population using a representative sample of that population. In addition, the term survey refers to a study that has used a representative sample (Creswell, 2009).

The survey research design was adopted for the study because it gave the researcher the opportunity to generate data from teachers through their objective opinions obtained through administration of questionnaire. This type of survey attempts to provide and accurate and objective description of a picture of an on-going situation or real-life situation (Quartey & Awoyemi, 2002). Groves, Flower Jr, Couper, Lepkowski, singer, and Tourangeau (2011), indicated that survey studies are conducted to collect detailed description on existing phenomenon (instructional effectiveness) with the intent of employing data to justify current conditions, practices or make more intelligent plans for improving them. He further explained that, in addition to analyzing, interpreting and reporting on the status of an issue (effective instructional procedures for teaching adaptive skills in Unit Special Schools in Ghana), descriptive surveys can be used to determine the adequacy of an activity by comparing results to

established standards. It also has another advantage of producing a good amount of responses from a wide range of respondents. This design is ideal because this study will provide a report on effective instruction procedures used by teachers in teaching adaptive skills as well as the challenges they encounter in the same exercise.

This does not mean that the descriptive survey design is not without weakness. Marczyk, DeMatteon & Festinger (2005) observe that survey designs, like all non-experimental designs, no matter how convincing the data may be, cannot rule out extraneous variables as the cause of what is being observed. This is because descriptive survey designs do not have control over the variables and the environment that they study. This means that findings from survey are most often influenced by factors other than those attributed by the researcher. Seifert and Hoffgung (1991) also identify problems of survey designs to include the possibility of producing untrustworthy result because they may delve into people's private matters. Again, since descriptive survey designs most often make use of questionnaires, it becomes limited to respondents who are literate. However, attempts were made to minimize the limitation(s) of survey design in this study. These include avoiding issues which respondents considered sensitive and personal. Also, all members of the target group were literates and the researcher used very simple language to make the items easy to understand and answer. Finally, this design is ideal because, it is quite easier to cater for the weaknesses as mentioned above.

Study Area

The study was confined to Unit Special Schools (USS) in Ghana. The schools are located in 10 regions in Ghana including the 3-unit schools in the

67

Central region, 2 in Volta region, 6 in the Eastern region, 2 in the Greater Accra in the Ashanti, 3 in Brong Ahafo, 2 in the Western region, 1 in upper east, 1 in the upper west and 1 school in the northern region of Ghana. The choice of Unit special schools is mainly based on the fact that it recorded one of the highest prevalence of persons with intellectual disability (ID). The prevalence rates of IDs are estimated at 1% to 3 % of the global population (Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011). Table 3 indicates the names and towns where the schools are located.

Table 3-*Names and Locations of Unit Special Schools in Ghana*

S/N	Units	Regions
1	Aboom School for Special Needs, Cape Coast	Central
2	Don Bosco Unit Special School, Winneba	Central
3	Reverend Father John Basic Unit Special School	Central
4	Swedru Presby Unit Special School	Central
5	Dansoman M/A Basic, Accra	Greater Accra
6	Madina M/A Unit School	Greater Accra
7	Adukrom Special Unit	Eastern
8	GCD Quarters, Akwatia	Eastern
9	Don Bosco Special Unit	Northern
10	Hooper memorial Unit Special School, Tarkwa	Western
11	St. Joseph R/C Special Unit	Brong Ahafo
12	Nyamaa Special Education unit school	Brong Ahafo
13	Akuamoah Akyeampong Special Unit	Eastern
14	Dakpema Tamale special unit school	Northern
15	Koforidua deaf special unit	Eastern
16	Ho Anglican special unit school	Volta
17	Yilo state unit special school	Eastern
18	Goaso Presby unit special school	Brong Ahafo
19	St. Charles Unit special school, Bolga	Upper East
20	Ofori Panyin M/A Unit special school	Eastern
21	Denu Unit special school	Volta
22	Effiduase Unit special School	Ashanti
23	Navrongo M/A Unit Special School	Upper East

68

Approximately 3% of the population has an intelligence quotient (IQ) of less than 70 Higher prevalence rates exist in developing countries (Maulik, et. al., 2011; WHO, 2001) and Ghana is not an exception. In Ghana, the report on the 2010 population census indicated that about 737,743 persons live with disability and this represents 3% of the country's total population. In addition, 15.2% of the 3% have intellectual malfunctioning (GSS, 2012). From the studies reviewed, no other study had been carried out previously to examine the effectiveness of the instructional strategies for adaptive skills in the Unit special schools of learners with ID in Ghana. The information gathered helped to understand the situation about the instructional strategies for adaptive skills and acquisition of Adaptive Skills by learners with ID. Finally, the selection of Unit special schools is ideal, considering the number of teachers in each school in the Unit special schools. The teachers in the Unit special schools were few so all the teachers in all the schools in Ghana were used.

Population

The target population of the study comprised of all teachers within the twenty-three (23) Special Unit Schools in Ghana. Population refers to all individuals of interest to the researcher (Marczyk, DeMatteon & Festinger, 2005). They also explain population as a set of individuals (objects, subjects, events) that have common observable characteristics for which a researcher is interested. The twenty-three institutions were targeted because, those institutions have the larger number of students with intellectual disabilities in various degrees. The assumption is that, all the teachers in these special schools have the required experience and knowledge when it comes to the teachings of adaptive skills hence their relevance in serving as the respondents of this study.

69

Their experience and knowledge will help the researcher to document and report on effective instructional procedures for teaching adaptive skills. Creswell (2012), opined that the criteria for the inclusion of a unit in a survey are based on characteristics of respondents who are eligible for the participation in the survey. There were 82 teaching staff, that is, 60 teachers and 22 head teachers from all the targeted units. Out of the 82 staff members, 42 were males and 40 were females. However, in this study only the teachers (n=60) were used. The distribution of the population of teachers in the Special Unit Schools are indicated in Table 4.

Table 4- *Target Population*

S/N	Units	Number of teachers
1	Aboom School for Special Needs	4
2	Don Bosco Unit Special School, Winneba	2
3	Reverend Father John Basic Special Unit School	5
4	Swedru Presby Special Unit School	3
5	Dansoman M/A Basic, Accra	2
6	Madina M/A Unit School	1
7	Adukrom Special Unit	4
8	GCD Quarters, Akwatia	1
9	Don Bosco Special Unit	4
10	Tarkwa Unit School	3
11	St. Joseph R/C Special Unit	2
12	Nyamaa Special Education	2
13	Akuamoah Akyeampong Special Unit	2
14	Dakpema Tamale	2
15	Koforidua deaf	4
16	Ho unit	2
17	Yilo state unit school	1
18	Goaso presby Special Unit	1
19	St. Charles Special Unit, Bolga	3
20	Ofori Panyin M/A Special Unit	4
21	Denu Special Unit	4
22	Effiduase Unit	4
23	Navrongo M/A Unit Special School	5
	Total	65

Sample and Sampling Procedure

The selection procedure was in two phases. On the first phase, purposive sampling technique was used to select all the twenty-three Unit special schools (USS) in Ghana. The choice for USS's were made because they are the educational institutions in the country that harbour most of the students with intellectual disabilities. Further, the choice for purposive selection was ideal because, the institutions responsibilities and infrastructural and instructional circumstances do not differ much from one another hence they were assumed to have the relevant characteristics of interest for the study which cannot equally be attained from other institutions. On the second phase, all the teachers (n=60) within the USS's were involved in the study as the study respondents without selecting any. Census was used because the researcher felt the size of the population was relatively smaller and hence would require that all the teachers are used (Gay, Mills & Airasian, 2009).

Data Collection Instruments

The study made use of adaptive skills teaching questionnaire. Both instruments were developed using studies in the literature about adaptive skills teaching. A questionnaire was chosen because of its effectiveness in collecting data from a large number of people within a short possible time (Amedahe 2002).

Adaptive teaching skills questionnaire

This questionnaire was developed by the researcher of this present study after a thorough review of literature on the issue of adaptive teaching. The instrument has six sub-sections (A-F) (Appendix C). The first section, that is 'A' had six (6) items that covers the demographical characteristics of

71

respondents. Section 'B' also had 28 items which focuses on adaptive skills taught by teachers in Unit Special Schools in Ghana. Section 'C' which has nine (9) items measured instructional strategies that teachers used in teaching adaptive skills. Section 'D' had ten (10) items measuring instructional strategies that teachers perceive to be effective when teaching children with intellectual disability adaptive skills. Moreover, section 'E' was added to measure the commonly used teaching and learning materials in Unit Special Schools. This sub-section had three items. Furthermore, section 'F' which is the final sub-section had twelve (12) items which also measured challenges that teachers encounter when teaching adaptive skills in Unit special schools. All in all, the questionnaire had sixty-eight (68) items with internal consistency reliability of .86.

Pilot testing of the Instrument

The instruments were pilot tested using five teachers of a Unit Special School (i.e. Aboom unit school for special needs). This institution was taken out of the twenty-three Unit special schools in Ghana purposely for the pilot exercise. The researcher administered the pilot testing questionnaire and the checklist herself and allowed the respondent to write any comment they find necessary on and behind the instruments for purposes of correcting the items on the instruments. Indeed, some of the respondents indicated that they were not familiar with some of the words on the instruments so it paved way for those items to be recrafted. Aside the fact that the pilot testing exercise helped the researcher to finetune the instrument (Amedahe, 2002), the exercise also allowed the researcher to test the practicality of the main data collection exercise.

Validity and Reliability

It is of greatest essence that any research instrument intended for the purpose of collecting data for research purposes to be tested for its reliability and validity, only then can it qualify as research tool. According to Joppe (2000), reliability is the extent to which results are consistent over time and are an accurate representation of the total population under study in such a way that if the results of a study can be reproduced under a similar methodology, then the research instrument adopted for the study is considered to be reliable. A scale is therefore reliable to the extent that repeated measurements obtained using it under constant conditions will give the same results (Ranjit, 1999). The reliability of the instruments for this study was ascertained by measuring the internal consistency of the four instruments. Cronbach's alpha was used to obtain a reliability coefficient ranging from .86. This affirms the view of DeVellis (1991) that a reliability coefficient of 0.70 or more is appropriate for meaningful data collection exercise.

Joppe (2000) again suggests that validity is concerned with determining whether the research truly measures that for which it was intended to measure or how truthful the research results are. It refers to the researcher's ability to capture precisely the participant's view of the world and accurately portray it to the reader" (Wolcott, 1990). In other words, the research instrument must allow the researcher to hit "the bull's eye" of his or her research object. That is, to ascertain validity for the instruments adopted for this study, the instruments were meticulously vetted by the researcher's supervisors and other experts in the field of research.

73

Ethical Consideration

Observation of research ethics helps to protect the rights of the research participants and promote the integrity of the research (Israel & Hay, 2006). The following measures were taken as a way of observing ethics in research. The researcher applied for an introductory letter from Department of Education and Psychology (appendix D) and a research permit from Institutional Review Board from University of Cape Coast (Appendix B). It is important that research participants get informed before they are approached for data collection. To comply with this, the respondents informed before data collection through the use of consent letters. The consent letters (see Appendix C) contained important information about the research, and the importance of their participation in the study. The aim was to seek their informed consent and ensure voluntary participation. There was an opportunity for research participants to withdraw from the study if they felt like doing so. Anonymity and confidentiality were observed in the research study. In this study, the names of participants were kept anonymous and the data collected from the respondents were used for academic purpose.

Data Collection Procedures

Before proceeding to the field, the researcher sought permission from Institutional Review Board from University of Cape Coast (UCC) to collect the data from the selected schools. The researcher visited the selected schools to familiarize herself with them. The purpose of the study was explained to the headteachers. During the visit, arrangements were made regarding the time of data collection. Primary data was obtained using questionnaires. All the teachers, 60 of them submitted theirs. All the teachers who responded to the

74

questionnaire also filled the checklist as required. The researcher made all possible attempts to ensure that the data obtained was valid and reliable. Data collection lasted four weeks.

Data Processing and Analysis

The completed questionnaires were serially numbered for easy identification and were coded. Items on the four-point Likert scale were scored 4, 3, 2 and 1 with the response; Always, Sometimes, Hardly, and Never, respectively. Also, those that were dichotomous were score with Yes/Able=1 and No/Not able=0. Items in the negative were reverse coded.

Data to answer research question 1, 2 and 3 were analysed using percentages and frequencies where research questions 4 and 5 were analysed using mean and standard deviations. Descriptive statistical procedures were used because the idea was to describe the state of affairs regarding the construct of interest measured to answer the three research questions.
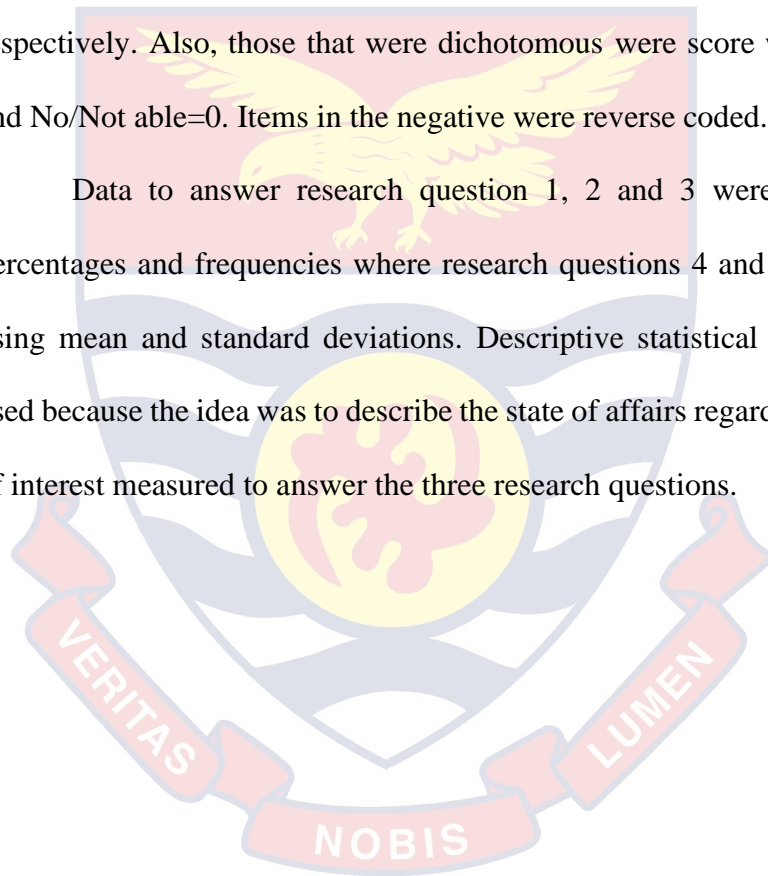
CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

In this chapter, the data collected from the respondents were analyzed using frequencies, percentages as well as means and standard deviations. The results were presented using tables and thereafter the discussions were presented.

Demographic Characteristics of Teachers

The study collected information on the demographic variables of the respondents. Information was collected on gender, age distribution, marital status, educational qualification, area of specialisation, as well as the teaching experience of the respondents. These are presented in Tables 5.

Table 5-*Demographic Characteristics of Teachers*

Variables	Frequency	Percentage (%)
Gender		
Male	34	57.0
Female	26	43.0
Total	60	100
Age Distribution		
Less than 22 years	6	10.0
22 to 40 years	24	40.0
41 years and above	30	50.0
Total	60	100
Marital Status		
Single	17	29.0
Married	39	65.0

76

Table 5: Continued

Separated	2	3.0
Divorced	2	3.0
Total	60	100
Qualification		
Diploma	4	7.0
First Degree	52	86.0
Masters	4	7.0
Total	60	100
Area of Specialisation		
Basic Education	7	12.0
CBR	6	10.0
EMH	4	7.0
Early Childhood	9	15.0
HPERS	3	5.0
ID	6	10.0
PE	3	5.0
Social Studies	13	15.0
Special Education	9	
Total	60	100
Teaching Experience		
Less than 1 year	4	7.0
1 to 4 years	21	35.0
5 years and above	35	58.0
Total	60	100

(Source: Field Survey, 2019)

Table 5 results show that majority (n= 34, 57%) of the respondents were males while their counterpart females were in a minority (n=26, 43%). This is an indication that as of the time of this study, Unit special schools in Ghana had majority of its teachers being males. On age-range variable, majority (n= 30, 50%) of the respondents were within the age-range of 41years and above 41 years but less than 60 years whereas the minority (n= 6, 10%) were less than 22

77

years of age. This presupposes that many of the teachers teaching at the Unit special schools are within their mid-adulthood. The young ones are very few. Substantial number (n= 39, 65%) of the teachers were married individuals. For qualification of respondents, majority (n= 52, 86%) of them had first degree while minimal number (n= 4, 7%) were either having a master degree or diploma as shown in Table 5. This is an indication that majority of teachers as at the time of this study had completed at least a first-degree programme in an accredited educational institution.

Moreover, Table 5 shows that majority (n= 13, 22%) of the respondents had their specialisation in Social Studies Education. This was followed by those who had specialisation in Early Childhood Education (n= 9, 15%) and Special Education (n= 9, 15%). Quite substantial number (n= 7, 12%) had their specialisation in Basic Education. The rest had specialisation in CBR (n= 6, 10%), ID (n= 6, 10%), HPER (n= 3, 5%) and PE (n= 3, 10%). The data on teacher area of specialisation suggests that as at the time of the investigation majority of the teachers who were teaching at the Unit special schools in Ghana had specialisations that were unrelated to the job they were doing there. Simply put, they were teachers who were not fit for purpose as far as the education of persons with intellectual disabilities are concern.

One may argue that they are all teachers who have read at least a course in special education, however, the point that should over-ride is the fact that they are not detailed in terms of the required technical knowledge and methodology. For experience, majority (n= 35, 58%) of the teachers were individuals who have taught for five years and above. The teachers who had less years of teaching experience were very few (n= 4, 7%). This tells us that as of

the time of the study, Unit special schools had substantial number of experience teachers teaching students with intellectual disabilities. This further suggest that the teachers were in the right position to provide the researcher with relevant information from their stock of knowledge and experience.

Results of the Research Questions

This section of the study presents results and discussions as obtained from the data gathered from respondents. In gathering the data, a questionnaire which has a polytomous and dichotomous responses were used. The sections which were polytomous measure variables on a four-point Likert scale and it was coded as Strongly Agree/Always=4, Agree/Sometimes=3, Disagree/Hardly=2 and Strongly Disagree/Never=1. In this case, the highest score was 4, lowest score 1 and cut-off average score for interpretation was 2.5. For dichotomous responses, yes, represented 1 and no represented 0. The summary of the results and the discussions are shown in the tables below.

Research Question One: Which adaptive skills do teachers teach learners with intellectual disabilities in (ID) in the Unit Special schools in Ghana?

This research question sought to explore the adaptive skills that teachers teach in Special Unit Schools. Summary of the results are shown in Table 6.

Table 6-*Self-care Skills taught*

Self-care Skills	Yes	No	Totals
Dressing	60(100%)	-	60(100%)
Bathing	59(98%)	1 (2%)	60(100%)
Grooming	58(97%)	2 (3%)	60(100%)
Feeding	56(93%)	4 (7%)	60(100%)
Buttoning/unbuttoning	58(97%)	2 (3%)	60(100%)
Zipping	57(95%)	3 (5%)	60(100%)
Washing of hands	58(97%)	2 (3%)	60(100%)
Oiling	50(83%)	10(17%)	60(100%)
Combing	56(93%)	4 (7%)	60(100%)

Source: Field Data (2019)

79

Table 6 results shows that in the teaching of self-care skills as segment of an adaptive skill lessons package, all the respondents (n= 60, 100%) indicated that they teach intellectually disabled students how to dress. On bathing, majority (n= 59, 98%) of the respondents indicated that they teach at school. Majority (n= 58, 97%) of the respondents also reported to be teaching grooming, feeding (n= 56, 93%), buttoning and unbuttoning (n= 58, 97%), zipping (n= 57, 95%), washing of hands (n= 58, 97%), oiling (n= 50, 83%) and combing (n= 56, 93%). Clearly when it comes to self-care behaviours, respondents who are teachers of Special Unit Schools said agreed that they teach children with intellectual disability how to bath, dress, button/unbutton, zip their dresses, comb their hair, wash their hands and feed themselves.

Table 7-*Communication skills taught*

Communication skills	Yes	No	Totals
Verbal communication	60(100%)	-	60(100%)
Non-verbal communication skills	60(100%)	-	60(100%)

Source: Field Data (2019)

Table 7 results indicate that all (n= 60, 100%) the respondents indicated that they teach students with intellectual disabilities communication skills such as verbal and non-verbal communication skills. This assertion was made by all Special Unit Schools teachers in Ghana who served as respondents of the study.

80

Table 8-*Social skills taught*

Social Skills	Yes	No	Totals
How to make friends in class	58(97%)	2(3%)	60(100%)
Learning the names of teachers	60(100%)	-	60(100%)
Learning the names of different types of food.	59(98%)	1(2%)	60(100%)
Learning names of days of the week	60(100%)	-	60(100%)
Learning of names activities, they do in school and at home.	58(97%)	2(3%)	60(100%)

Source: Field Data (2019)

Social skills were form part of the adaptive behaviours believed to be taught by teachers in the Special unit schools in Ghana. On this set of behaviours, Table 8, shows that majority (n= 58, 97%) of the respondents accepted the fact that they teach intellectually disabled students how to make friends in class. When it comes to learning of teachers' names, all (n= 60, 100%) the respondents said, they teach their students. Learning the names of different types of food was also indicated by majority (n= 59, 98%) of respondents to be part of what they teach the students. Once again, all (n= 60, 100%) the respondents accepted that they teach students names of the days of the week. Finally, learning of some of the home and school related activities were shown by majority (n= 58, 97%) of the respondents to be part of what they teach. On a whole, results show that, learning how to make friends, knowing names of teachers, types of food, days of the week and some home and school related activities constituted the curriculum for social skills acquisition.

81

Table 9-*Functional academics*

Functional academic	Yes	No	Totals
Reading	60(100%)	-	60(100%)
Writing	60(100%)	-	60(100%)
Math skills necessary for everyday life (buying and getting changed)	59(98%)	1(2%)	

Source: Field Data (2019)

Table 9 results show that for functional academic skills, majority (n= 59, 98%) of respondents agreed that they teach mathematics skills necessary for everyday life such as knowledge needed for buying something with money and getting changed. However, when it comes to reading and writing, all (n= 60, 100%) the respondents indicated they teach their students how to perform those skills. All in all, teachers who are respondents accepted the idea that reading, writing and basic mathematical tasks needed for everyday life constituted the functional academic skills that were being taught.

Table 10-*Health and safety skills taught*

Health and safety	Yes	No	Totals
Brushing teeth	59(98%)	1(2%)	60(100%)
Washing of clothes	56(97%)	4(7%)	60(100%)
Bathing at least two times a day	57(95%)	3(5%)	60(100%)
Drinking clean water	60(100%)	-	60(100%)
Washing of hands before and after visiting the toilet	60(100%)	-	60(100%)

Source: Field Data (2019)

82

Healthcare and safety skills were part of the adaptive behaviours that respondents agreed to be impacted by them to their students. From Table 10, majority (n= 59, 98%) of the respondents concerted that they teach students how to brush their teeth, wash their clothes (n= 56, 97%), bath at least two times a day (n= 57, 95%). Again, when it comes to teaching of students with intellectual disability to drink clean water and wash their hands after visiting the toilet, all (n= 60, 100%) the respondents indicated that that they do. In all, brushing of teeth, washing of clothes, bathing regularly, drinking of clean water and washing hands after visiting the toilet the details of what were been taught as health and safety skills.

Table 11-*Community use taught*

Community use	Yes	No	Totals
How to shop in the market	56(97%)	4 (7%)	60(100%)
How to cross the road	60(100%)	-	60(100%)
How to use public transport	50(84%)	10(16%)	60(100%)
How to greet elderly people in the community	59(98%)	1 (2%)	60(100%)

Source: Field Data (2019)

Since persons with intellectual disability also form part of the community, teachers indicated that community use had set of skills that students needed to learn. On community use, Table 11 shows that majority (n= 56, 97%) of the respondents said they teach students with intellectual disability how to shop in a market. Again, majority (n= 50, 84%) of the respondents accepted that they teach students with intellectual disability how to board public transport and how to greet the elderly (n= 59, 98%). However, all (n= 60, 100%) supported

83

that they teach students how to cross the road. In all, been able to shop at the market, crossing the road, boarding public transport and learning how to greet the elderly were the details of what form community use that teachers teach children with intellectual disability. From the data presented by Tables 6 to 11, it can be concluded that the adaptive skills curriculum been implemented by Unit special schools in Ghana comprises self-care behaviours such bathing, dressing etc., communicative skills, social skill which also involves making friends and learning names of days of the week etc., functional academic skills (i.e. reading, writing and arithmetic), health and safety skills as well as community use skills.

Research Question Two: What instructional strategies do teachers use to teach adaptive skills in the Unit special schools in Ghana?

This research question sought to investigate the instructional strategies that teachers use in teaching students with intellectual disability adaptive skills. Summary of the results are shown in Table 12.

Table 12-*Instructional strategies teachers use to teach adaptive skills*

Instructional strategies	Always		Never	
	freq	%	freq	%
Cooperative teaching	43	72	17	28
Direct instruction	45	75	15	25
Peer tutoring	23	38	37	62
Team teaching	25	42	35	58
Interactive teaching	56	93	4	7
Augmentative alternative	20	33	40	67
Communication modelling	29	48	31	52
Chaining (backward and forward)	16	27	44	73
Group learning	13	22	47	78
Task analysis	11	18	49	82

Source: Field Data (2019)

84

Results from Table 12, show that majority (n= 43, 72%) of the respondents indicated that they always make use of cooperative strategy when teaching students with intellectual disability adaptive skills. Direct instruction was used by most (n= 45, 75%) of the respondents when adaptive skills to students with intellectual disability. Moreover, the data from the study support the fact that more (n= 56, 93%) of the respondents (who are teachers) always make use of interactive teaching procedure when teaching adaptive skills. On a contrary, majority (n= 37, 62%) of the respondents showed that they do not use peer tutoring when teaching adaptive skills. Again, team teaching technique was found not to be used by majority (n= 35, 58%) of the respondents for teaching adaptive skills. Moreover, for most (n= 40, 67%) of the respondents they never made use of augmentative alternative procedure, communication modelling (n= 31, 52%), chaining (n= 44, 73%), group work (n= 47, 78%) and task analysis (n= 49, 82%). In conclusion, data from the study show that among the several instructional procedures that exists, teachers in Special Unit Schools always make use of cooperative, direct instruction and interactive procedure when teaching children with intellectual disability adaptive skills.

Research Question Three: Which of the instructional strategies are most effective in teaching adaptive skills to learners with ID?

This research question sought to determine the most effective instructional strategies used by teachers in teaching students with intellectual disabilities adaptive skills. Summary of the results are shown in Table 13.

Table 13-*Instructional strategies teachers consider most effective for the teaching of adaptive skills*

Instructional strategies	Most Effective		Ineffective	
	freq	%	freq	%
Cooperative teaching	2	3	58	95
Direct instruction	52	87	8	13
Peer tutoring	10	17	50	83
Team teaching	7	12	53	88
Interactive teaching	50	83	10	17
Augmentative alternative	1	2	59	98
Communication modelling	13	22	47	78
Chaining (backward and forward)	19	32	41	68
Group learning	9	15	51	85
Task analysis	1	2	59	98

Source: Field Data (2019)

Table 13 results show that majority (n= 52, 87%) of the respondents' hold the view that direct instruction is very effective when teaching students with intellectual disability adaptive skills. Like the direct instruction method, most (n= 50, 83%) of the respondents believe that interactive method is also very effective when teaching adaptive skills. However, even though often used, most (n= 58, 95%) of the respondents indicated that cooperative technique is ineffective when it comes to the teaching of adaptive skills. More (n= 50, 83%) of the respondents also found peer tutoring, team teaching (n= 53, 88%), augmentative alternative (n= 59, 98%), communication modelling (n= 47, 78%), chaining (n= 41, 68%), group learning (n= 51, 85%) and task analysis (n= 59, 98%) as ineffective techniques for teaching adaptive skills in Unit

86

special schools. All, in all, data from the study support the fact that practitioners (that is teachers at Unit special schools) acknowledged direct instruction as well as interactive instruction to be the most effective methods of teaching students with intellectual disability adaptive skills.

Research Question Four: What teaching and learning materials do teachers use in teaching adaptive skills to learners with intellectual disabilities (ID) in the Unit special schools in Ghana?

This research question sought to investigate the teaching and learning materials relevant for the teaching and learning of adaptive skills. Summary of the results are shown in Table 14.

Table 14-*Teaching and learning materials used in teaching of adaptive skills*

TLMs	Yes	No	Totals
Audio aids	56(93%)	4(7%)	60(100%)
Visual aids	59(97%)	1(3%)	60(100%)
Audio-visual aids	59(97%)	1(3%)	60(100%)

Source: Field Data (2019)

Table 14 results depict that most (n=, %) of the respondents approved that audio aids are crucial for the teaching and learning of adaptive skills. Again, majority (n=, %) of the respondent see visual aids as relevant resources for the teaching of adaptive skills in Unit special schools. Moreover, majority (n=, %) of the respondents also rated audio-visual aids as useful when it comes to the teaching and learning of adaptive skills. Conclusively, respondents indicated that they made use of audio aids, visual aids and audio-visual aids as teaching and learning material.

87

Research Question Five: What are the challenges teachers in the Unit special schools in Ghana encounter when teaching adaptive skills to learners with ID?

The research question had the purpose of exploring the challenges that teachers in Unit special schools encounter when teaching children with intellectual disabilities adaptive skills. Summary of the results are shown in Table 15.

Table 15-*Challenges teachers face in teaching adaptive skills*

Statements	Mean	Std.
Inadequacy of teaching and learning materials.	3.8	.39
The curriculum content not being relevant.	1.0	.52
Lack of classrooms and learning environment.	1.7	.59
Negative attitude towards teachers.	1.5	.62
Learners forgetting what they learn	2.0	.68
Lack of motivation and poor salary	3.5	.75
High Student - Teacher ratio	3.2	.92
Stigma and discrimination attached to the education of persons with special educational needs and disabilities	3.6	.80
Average Mean and Std. Deviation	2.5	.66

Source: Field Data (2019)

As life activities are always fraught with challenges, Table 14 shows that respondents rated high (M= 3.8, SD= .39) inadequacy of teaching and learning materials when talking about challenges they encounter in the teaching of adaptive skills. This was followed (M= 3.6, SD= .80) by stigma and discriminatory issues attached to the teaching children with intellectual disabilities. Moreover, lack of motivation and poor salary were also indicated

88

(M= 3.5, SD= .75) by respondents as challenges. Further, high student-teacher ratio was also conceived (M= 3.2, SD= .92) as challenge to the teaching of adaptive skills. On the contrary, respondents did not see (M= 1.0, SD= .52) curriculum content as irrelevant and a challenge to the teaching and learning of adaptive skills. Respondents did not support (M= 1.7, SD= .59) the fact that classrooms and learning environment was a problem. In addition, when the statement, "negative attitude towards teachers", was posed, respondents did not see (M= 1.5, SD= .62) it as a challenge. Finally, respondents disagreed to the statement that "learners forgetting what they have been taught" was a challenge to the teaching and learning of adaptive skills. Overall, results in Table 15 point to the fact that, inadequate teaching and learning materials, stigmatisation and discrimination as well as lack of motivation and poor salary as the problems that teachers in Special Unit Schools face as they perform their duty of teaching students with intellectual disability adaptive skills. The mean of mean score (M= 2.5, SD= .66) also support the fact that respondents agreed that those challenges outline really exist. the standard deviation score of .66 further suggest that respondents' responses were homogeneous in form.

Discussion

This section discusses the research findings in relation to teachers' instructional strategies for teaching students with intellectual disabilities adaptive skills. The discussion specifically addresses:

1. Adaptive skills teachers teach students with intellectual disabilities.

2. Instructional strategies teachers use in teaching adaptive skills.

3. Most effective instructional strategies for teaching adaptive skills.

89

4. Teaching and learning materials that aid in the teaching of adaptive skills.

5. Challenges that teachers face in the teaching of adaptive skills.

Adaptive skills teachers teach students with intellectual disabilities

Research question one sought to investigate the adaptive skills that teachers in Unit special schools teach their students with intellectual disabilities. Findings from the data analysis revealed that the adaptive skills curriculum been implemented by Unit Special Schools in Ghana comprises self-care such as bathing, dressing etc., communicative skills, social skill which also involves making friends and learning names of days of the week etc., functional academic skills (i.e. reading, writing and arithmetic), health and safety skills as well as community use skills. Teachers who were respondents of the study indicated that these adaptive skills when learned will help students to be independent of others in their homes and society when it comes to basic things that they have to do for themselves.

The findings corroborate with several findings in the literature. For example, Izuagie (1992) discovered that adaptive skill acquisition which is an ongoing intervention may improve functioning and enable the person to thrive throughout their lifetime. On the view, Ncube (2006) study supported the earlier finding on the grounds that adaptive skill when taught and acquired by persons with intellectual disability, they will be better positioned to cope with the social situations they are likely to encounter. The findings in this study also discovered that teachers within Unit special schools teach self-care, communication, social, functional academic, health and safety as well as community use skills. These group of adaptive skills were also identified by Okyere and Adams (2003). They

90

further indicated that these adaptive skills help people with intellectual disability to be very stable and independent in society. Other studies (i.e., Yekple, 2008; APA, 2013; Turnbull, & Wehmeyer, 2007) in the literature equaly corroborated the adaptive skills that were listed by Okyere and Adams (2003).

Instructional strategies teachers use in teaching adaptive skills

For research question two, the idea was to uncover the instructional strategies that teachers in Unit special schools use in teaching students with intellectual disabilities adaptive skills. Data was gathered in a survey and the analysis showed that among the several instructional procedures that exists, teachers in Unit special schools always make use of cooperative method, direct instruction and interactive procedures when teaching children with intellectual disability adaptive skills. The findings appear to highlights methods that are active and students-cantered in nature. For example, for a student who is intellectually disabled to be able to dress up himself or herself, a teacher can do so with a colleague teacher, both will perform different duties relating to the child's learning of the activity been taught (cooperative approach) or possibly, you the teacher must dress up while the child imitate what you do (interactive) to bring about relatively permanent change in behaviour (learning).

The findings concur that of Turnbull and Wehmeyer (2007) who discovered that cooperative learning arrangements promote increased learning for learners with mild to moderate intellectual disabilities. Turnbull and Wehmeyer (2007) confirmed the study of Gargiulo (2006) who found out that cooperative teaching help children with intellectual disabilities to make gains of school learning experience. Even though because of the short memory span

91

of children with intellectual disability, Carol (1999) pointed out that such children may not benefit from direct instruction, hence the reason for predominant usage of cooperative and interactive teaching procedures in special schools. Interactive method is always perceived as good because it helps encourage learners to be part of the learning situation (Turnbull, Turnbull, & Wehmeyer, 2007).

Most effective instructional strategies for teaching adaptive skills

The aim of research question three was to find out which of the instructional strategies used by teachers in teaching students with intellectual disabilities adaptive skills were considered most effective. From the analysis of data taken from teachers in Unit special schools in Ghana, findings showed that even though a host of methods are used by teachers, they consider direct instruction and interactive teaching to be the most effective methods. Direct approach (i.e. teacher-centered) by its nature has to do with provision of information. For example, when teaching children with intellectual disabilities functional academic skills such as reading, the direct approach would help since information about words and how to pronounce them would have to be provided by the teacher. Again, when a teacher desires to teach social skills, such as learning of names of parents and teachers, days of the week among other. A teacher would have to provide information about what is to be learned. However, interactive technique also becomes very helpful when skill such as brushing of teeth, crossing the road, how to wash one's hands after visiting the toilet among others.

The aforementioned issues make the mentioning of direct instruction and interactive teaching as effective methods meaningful. The findings support

92

several empirical findings in the literature. Turnbull, Turnbull and Wehmeyer, (2007) discovered that the effectiveness of interactive teaching lies on the fact that learners them active and attentive to benefit from classroom engagement. This study finding of direct instruction being effective method of teaching in special school deviate from the assertion of Carol (1999). Carol (1999) found out that people with intellectual disability do not benefit from direct instruction because of their low memory span. The current study discovery effectiveness was not in isolation of other method. After an activity-based method, say, interactive method is used to take the attention of students, direct instruct is then used by the teacher to provide meaningful information for childrens' learning (e.g. name of days of the week, or name of friends in class etc.). students benefit from multiple application of teaching methodology in the classroom context (Lynch and Star, 2013).

Teaching and learning materials that aid in the teaching of adaptive skills

Research question four sought to explore the teaching and learning materials that are used when teaching adaptive skills in Special Unit Schools in Ghana. Findings from the study indicated that teachers made use of audio aids, visual aids and audio-visual aids as teaching and learning materials. The inferences made from the study finding are that teaching and learning materials are able to make teaching sessions interactive and more practical and not abstract. It is generally known that students with intellectual disabilities benefits most from technology-based teaching hence the use of audio, visuals and audio-visual aids are more likely to make classroom engagement with students productive. The finding is in line with Sediyani, Yufiarti and Hadi (2017) who discovered that the usage of audio-visual multimedia resources assists teachers

93

to be effective when teaching children with special needs. Ruthven, Hennessy and Brindley (2004) also noted that the use of Audio and visual resources in the classroom makes teaching easier and motivating especially for children with diminished attention span. The finding of the current study is however, not surprising since teachers in the Unit Special Schools are aware of the memory span of their students and desire to maximise classroom learning. Cakir (2006) would rather put it this way, 'the use of audio-visuals in teaching is to make learners think through what they hear and watch so they can learn from them' (p.15).

Challenges that teachers face in the teaching of adaptive skills

Research question five was founded on the purpose of identifying the challenges that teachers face in the teaching adaptive skills in Unit special schools. Data was gathered from teachers on the field and analysis of the data showed inadequate teaching and learning materials, stigmatisation and discrimination as well as lack of motivation and poor salary as the problems that teachers in Unit Special Schools face as they perform their duty of teaching students with intellectual disability adaptive skills. This challenges definitely have implications on the quality of instruction and the overall attainment of the Individualised Education Plan (IEP) of the students. First and foremost, inadequate teaching and learning materials hinder the smooth implementation of school curriculum and Unit special schools are not exception, and this challenge has been the case of most special schools in Africa as reported by (Booth & Ainscow, 1998). Teachers may not be effective in class if TLMs are insufficient. Further, the current study found, stigmatisation, low motivation of teachers due to poor salary issues as another challenge facing the smooth

implementation of the adaptive skills curriculum. The aforementioned findings concur with that of Udoba (2014) who discovered the same trend of problems, that is, low teacher motivation, perception of poor salary, stigma attached to the teaching of children with intellectual disability and inadequate teaching and learning materials. When teachers have these concerns and they are not addressed, they become demotivated and detached from the very children they are to help (McMary & Sarah, 2005).

Chapter Summary

The descriptive statistics (That is percentage and frequencies, mean and standard deviation) were employed in the analysis of the five research questions. The findings are presented as follows:

1. Teachers are implementing a comprehensive adaptive skills curriculum.

2. Cooperative method, direct instruction and interactive procedures were the frequently used strategies for teaching students with intellectual disabilities.

3. Teachers found direct instruction and interactive teaching to be the most effective methods.

4. Teachers made use of audio aids, visual aids and audio-visual aids as teaching and learning materials.

5. Inadequate teaching and learning materials, stigmatization and discrimination as well as lack of motivation and poor salary were the problems of teachers in Unit special schools.

95

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Overview of Research Problem and Research methods

The study sought to investigate perceived effect of teachers' instructional strategies on children with intellectual disabilities. A descriptive cross-sectional design was adopted for the study. The study targeted all the twenty-three Unit special schools in Ghana are at the time of the study. Multi-stage sampling procedure was used to arrive at the required sample. On the first stage, a purposive sampling technique was used to select the 23 schools from each the entire country. On the second stage, census approach was used to involve all the teachers (n=65) from the selected schools because the number was considered as relatively small. Data was collected using questionnaire. The data was analysed descriptive statistics, specifically, using frequencies and percentages, mean and standard deviation, with results presented in tables.

Summary of Key Findings

Survey results revealed that the adaptive skills curriculum been implemented by Unit special schools in Ghana comprises self-care behaviours, communicative skills, social skills, functional academic skills, health and safety skills as well as community use skills.

Finding suggest that among the several instructional procedures that exists, teachers in Special Schools always make use of cooperative method, direct instruction and interactive procedures when teaching children with intellectual disability adaptive skills.

96

Findings further suggested that even though a host of instructional methods are used by teachers in Special Unit Schools, it appears that the teachers consider direct instruction and interactive teaching to be the most effective methods.

Findings from the study indicated that teachers made use of audio aids, visual aids and audio-visual aids as teaching and learning materials. These were the cluster of materials they indicated to be effective when teaching students with intellectual disability.

Finally, the study findings showed inadequate teaching and learning materials, stigmatization and discrimination as well as lack of motivation and poor salary as the problems that teachers in Unit special schools face as they perform their duty of teaching students with intellectual disability adaptive skills.

Conclusions

Based on the study findings it can be concluded that the adaptive skills curriculum that teachers in Unit special schools are implementing is comprehensive since it captures self-care skills, communication skills, social skills, functional academic skills, health and safety skills and community use skills.

Again, the study can also conclude that cooperative teaching and direct instruction method prevails among teachers who teach adaptive skills in Unit special schools in Ghana.

Students with intellectual disabilities within the Unit special schools in Ghana are more likely to benefit from instructions on adaptive skills since most

of the teachers make use of students-centered approaches (such as cooperative and interactive methods) and also find them to be effective.

Teaching of adaptive skills are more likely to be engaging, interesting and attention sustaining since teachers in Unit special schools in Ghana make use of media resources such as; audio, visuals and audio-visual materials.

It can also be concluded that if pragmatic steps are not taken to address the current challenges, teachers are more likely not to commit themselves to achieving the goals of adaptive skill curriculum in Unit special schools.

Recommendations

In line with the research findings and the conclusions drawn, the following recommendations are made for policy and practice:

1. Ghana Education Service in collaboration with all the head teachers should organize a workshop on 'effective instructional methods for adaptive skills teaching' to updates teachers regularly and to sustain their usage of students centered approaches to teaching.

2. Head teachers of Unit Special Schools should at regular point in time encourage teachers through award schemes and recognition to continue using the effective methods such as cooperative and interactive methods together with the audio-visual resources.

3. Ministry of Education through the Ghana Education Service as a matter of priority should ensure that all the Unit special schools in Ghana are equipped with adequate teaching and learning materials as well as upgrade in salaries for teachers to address part of their problems.

4. The media, civil service organization (CSO's), teacher unions and all stakeholders who have the education of persons with intellectual

disabilities at heart should join the train of campaign to sensitize the general public against stigmatization of persons who teach and those who live with intellectual disabilities.

Suggestions for Future Research

The following are suggested for future research:

1. The study should be replicated in the segregated special schools to further explore the methods that teachers in those schools also use in teaching pupils with intellectual disabilities to make the findings of this study more generalizable.

2. Investigate stress and burnout and coping mechanisms of teachers who teach students with intellectual disabilities.

99
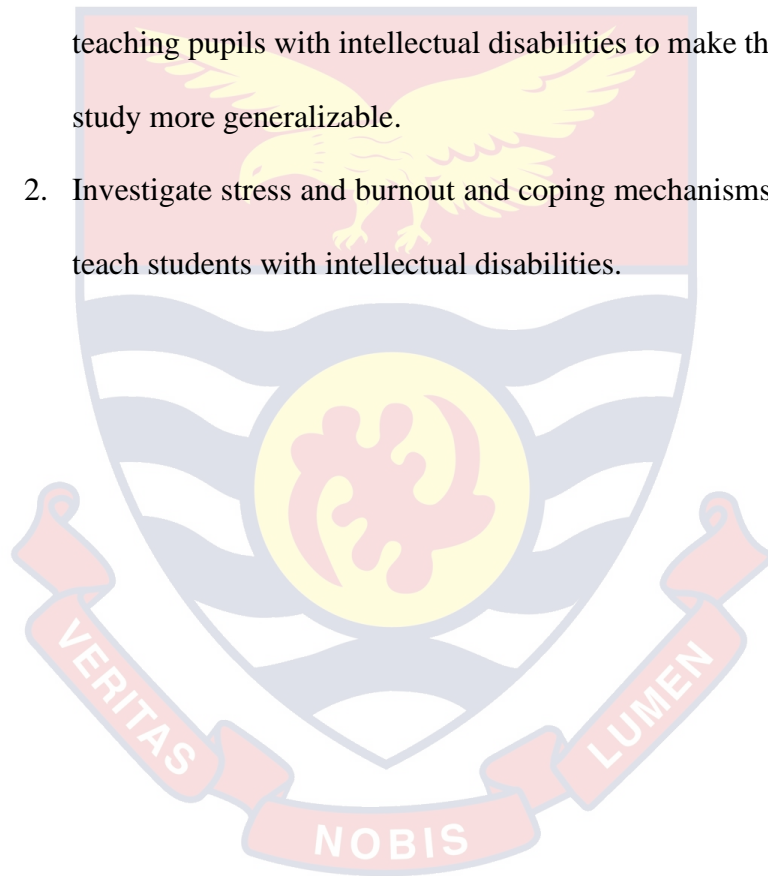
REFERENCES

Adebisi, R. O., Jerry, J. E., Rasaki, S. A., & Igwe, E. N. (2014). Barriers to special needs education in Nigeria. *International Journal of Education and Research, 2*(11), 451-462.

Adeogun, A. A. (2001). Instructional resources and school effectiveness in private and public secondary schools in Lagos State. *Lagos Journal of Educational Administration and Planning, 1*(1), 74-81.

Adera, B. A., & Asimeng-Boahene, L. (2011). The perils and promises of inclusive education in Ghana. *The Journal of International Association of Special Education, 12*(1), 28-32.

Aicardi, J. (1998). The etiology of developmental delay. *Seminars in Pediatric Neurology, 5*(1) 15-20.

Akakandelwa, A., & Munsanje, J. (2012). Provision of learning and teaching materials for pupils with visual impairment: Results from a national survey in Zambia. *British Journal of Visual Impairment, 30*(1), 42-49.

Algahtani, F. (2017). Teaching students with intellectual disabilities: Constructivism or behaivoursm? *Educational Research and Reviews, 12*(21), 1031-1035.

Amedahe, F. K. (2002). *Fundamentals of educational research methods*. Cape Coast. Mimeograph, UCC.

Amedahe, F. K., & Asamoah-Gyimah, K. (2016). *Introduction to educational research.* Center for continuing Educational, University of Cape Coast, Ghana. Cape Cast: Unpublished.

100

American Association on Mental Retardation (2002). *Mental retardation: Definition, classification, and systems of supports* (10th ed.). Washington, DC: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5)*. American Psychiatric Pub.

Angelo, D.H. (1997) AAC in the family and home. In S. Glennen, D. C., (Eds) *Handbook of augmentative and alternative communication*. San Diego: Singular Publishing Group.

Aniemeka, N.E. (2005), *Fundamental of educational technology.* Abeokuta: Nigeria Publisher.

APA (1994). Diagnostic and statistical manual of mental disorders. *DSM-IV*.

Avoke, M. (2001). Some historical perspectives in the development of special education in Ghana. *European Journal of Special Needs Education*, 16(1), 29-40.

Avoke, M. (2002). Models of disability in the labelling and attitudinal discourse in Ghana. *Disability & Society, 17*(7), 769-777.

Babatunde W. (2000). *Effect of usability of instructional materials in teaching and learning of intellectual disabilities*. Lagos: Federal Ministry of education printing press.

Babayomi, A. O. (1999). Comparative study of the teaching and learning resources in private and public secondary schools in Lagos State. *An Unpublished M. Ed Dissertation. Department of Educational Administration, University of Lagos*.

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191.

101

Bauwens, J., Hourcade, J. J., & Friend, M. (1989). Cooperative teaching: A model for general and special education integration. *Remedial Special Education*, *10*(2), 17-22.

Blackhurst, A. E, & Berdine W. H., (1981). *An introduction to special education.* Bosten: Little Brown and Company.

Booth, T., & Ainscow, M. (Eds). (1998). *From them to us: An international study of inclusion in education.* New York: Psychology Press.

Boyd, D. J., Grossman, P. L., Lankford, H., Loeb, S., & Wyckoff, J. (2009). Teacher preparation and student achievement. *Educational Evaluation and Policy Analysis, 31*(4), 416-440.

Brennan, W. K. (1987). *Changing special education now. Children with special needs.* Texas: Texas University Press.

Broderick, A. A., & Kasa-Hendrickson, C. (2001). "Say just one word at first": The emergence of reliable speech in a student labelled with autism. *Journal of the Association for Persons with Severe Handicaps, 26*(1), 13-24.

Brooke, H., & Solomon, J. (2011). Passive visitors or independent explorers: Responses of pupils with severe learning difficulties at an interactive Science Centre. *International Journal of Science Education, 23*(9), 941-953.

Brown. E., (2001). *Teaching profession.* Quezon City: QP Publishing Incorporation.

Burns, N. H., & Grove, J. W. (2003). Experimental assessment of factors affecting transfer length. *Structural Journal, 100*(6), 740-748).

Cakir, I. (2006). The use of video as an audio-visual material in foreign language teaching classroom. *Turkish Online Journal of Educational Technology-TOJET, 5*(4), 67-72.

Cannella-Malone, H. I., Fleming, C., Yi-Cheih, C., Geoffrey, M. W., Abby, R. B., & Angella, H. S. (2011). Teaching daily living skills to seven Individuals with severe intellectual disabilities: A comparison of video prompting to video modeling. *Journal of positive behavior interventions,* 144-153

Caroll, J. B. (1999). *Principles of teaching.* New Jersey: Prentice Hall Inc.

Cohen, L. Manion, L., & Morrison, K. (2011). *Research methods in education*, (7th ed) London: Routledge.

Copeland, S. R., & Keefe, E. B. (2007). *Effective Literacy Instruction for Students with Moderate or Severe Disabilities*. Baltimore: Brookes Publishing Company.

Creswell, J. (2012). Best practices in mixed methods for quality of life research. *Quality of Life Research, 21*(3), 377-380.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches.* London: SAGE Publications, Incorporated.

Creswell, J. W., & Poth, c. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*. London. Sage publications.

Daily, D. K., Ardinger, H. H., & Holmes, G. E. (2000). Identification and evaluation of mental retardation. *American Family Physician*, *61*(4), 59-67.

Deku, P., & Gyimah, E. (2017). *Educating the special individual*. Accra: Paramount Printing Works Limited.

Delange, F. (1994). The disorders induced by iodine deficiency. *Thyroid*, *4*(1), 107-128.

DeVellis, R. F. (1991). Guidelines in scale development. Scale Development: Theory and Applications. Newbury Park, calif: Sage. *Difficulties in developing adaptive behaviuor: Some implications for teachers. Unpublished research paper:* Schools Psychological Services and Special Needs Department, Zimbabwe.

Durand, V. M. (1990). *Severe behavior problems: A functional communication training approach*. New York: Guilford Press.

Durkin, M. S., Khan, N. Z., Davidson, L. L., Huq, S., Munir, S., Rasul, E., & Zaman, S. S. (2000). Prenatal and postnatal risk factors for mental retardation among children in Bangladesh. *American Journal of Epidemiology*, *152*(11), 1024-1033.

Dworetzky, S. I. (1996). Phenotypic Alteration of a Human BK (hSlo) Channel byhSloβ Subunit coexpression: Changes in Blocker Sensitivity, Activation/Relazation and Inactivation Kinetics, and Protein Kinase A Modulation. *Journal of Neuroscience, 16(*15), 4543-4550.

Eleweke, C. J., & Rodda, M. (2002). The challenge of enhancing inclusive education in developing countries. *International Journal of Inclusive Education, (6*(2), 113-126.

Fey, M. E., Warren, S. F., Brady, N., Finestack, L. H., Bredin-Oja, S. L., Fairchild, M., Sokol, S., & Yoder, P. J. (2006). Early effects of responsivisty education/prelinguistic milieu teaching for children with developmental delays and their parents. *Journal of Speech, Language, and Hearing Research. 49*(3), 526-547.

Frieman, J. L. (2001). *Learning and adaptive behaviour*. New York: Cengage Learning.

Friend, M. (2008). Special education contemporary perspectives for school professionals. USA: Pearson Education Inc. Company

Gage, N. L. (1984). *Educational psychology*. Boston: Houghton Mifflin.

Gardner, S. J., & Wolfe, P. S. (2015). Teaching students with developmental disabilities daily living skills using point-of-view modeling plus video prompting with error correction. *Focus on Autism and Other Developmental Disabilities, 30*(4), 195-207.

Gargiulo, R. M. (2010). *Special education in contemporary society: An introduction to exceptionality*. Sage.

Gargiulo, R. M. (2017). *Instructional strategies for students with mild, moderate, and severe intellectual disability*. London: Sage Publications.

Gay, L. R. & Airasian, P. W. (2003). *Educational research: Competencies for analysis and application*. Prentice Hall.

Gay, L. R., & Airasian, P. (2003). *Educational research*. Upper Saddle River, New Jersey: Person Education.

Gay, L. R., Mills, G. E., & Airasian, P. W. (2009). *Educational research competencies for analysis and applications*. Merrill: Pearson Press.

Ghana Statistical Service (2012). 2*010 population and housing census. Summary report of final results*. Accra: Sakoa Press Ltd.

Ghana Statistical Service. (2010). *2010 Population & housing census: National analytical report*. Accra: GSS.

Giust, A. M., & Valle-Riestra, D. M. (2017). Supporting mentors working with students with intellectual disabilities in higher educational. *Journal of Intellectual Disabilities, 21*(2), 144-157.

Grossman, H. (1995). *Special education in a diverse society*. Boston: Allyn & Bacon.

Groves, R. M., Fowler, Jr, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2011). *Survey methodology*. Hoboken: John Wiley & Sons.

Guess, D., Benson, H. A., & Siegel-Causey, E. (1985). Concepts and issues related to choice-making and autonomy among persons with severe disabilities. *Journal of the Association for Persons with Severe Handicaps*, *10*(2), 79-86.

Harrison, P. L. (1991). Assessment of adaptive behavior. In B. A. Bracken (Ed.), the *psycho educational assessment of young children* (pp. 317–340). Needham, MA: Allyn & Bacon.

Hasbrouck, J., & Tindal, G. A. (2006). Oral reading fluency norms: A valuable assessment tool for reading teachers. *The Reading Teacher 59*(7)*,* 636-644.

Hayford, S. K. (2000). *An evaluation of vocational programmes of special schools for children with mental retardation in Ghana.* Unpublished UCC Master's Thesis.

Heward, W. L. (2000). Special education in a culturally and linguistically diverse society. *WL Heward, Exceptional children*: *An introduction to special education, 11*(2), 82-114.

Heward, W. L. (2003). Ten faulty notions about teaching and learning that hinder the effectiveness of special education. *The Journal of Special Education*, *36*(4), 186-205.

Heward, W. L. (2006). *Characteristics of children with mental retardation. Pridobljeno*, *17*(6), 2016.

Isenberg, J. P., & Quisenberry, N. (2002). Play: Essential for all children. A position paper of the Association for childhood Education International. *Childhood Education, 79*(1), 33-39.

Israel, M., & Hay, I. (2006). *Research ethics for social scientists*. London: Sage.

Izuagie, M. A. (1992). *Subject teaching method and national educational research and development*. Lagos: Lagos City Publishers.

Izuagie, M. A. (1992). *Subject teaching method and national educational research and development.* Lagos: Lagos City Publishers.

Kamuri, B. P. (2005). *Factors affecting implementation of inclusive education for children with special needs in primary schools.* Unpublished Thesis. Kenyatta University.

Kassah, B. L. L., Kassah, A. K., & Phillips, D. (2018). Children with intellectual disabilities and special school education in Ghana. *International Journal of Disability, Development and education, 65*(3), 341-354.

Kauffman, J. M., & Hung, L. Y. (2009). Special education for intellectual disability: Current trends and perspectives. *Current Opinion in Psychiatry, 22*(5), 452-456.

Kaur, R. (2005). *Special education: New trends and innovations.* New Delhi: Deep & Deep Publications PVT. LTD.

Kenya National Census, (2009). *Kenya national survey for persons with disabilities*. Nairobi: Government of Kenya

Kirk, S., Gallagher, J. J., Coleman, M. R., & Anastasiow, N. J. (2011). *Educating exceptional children*. Cengage Learning.

Klein, M. D., Cook, R. E., & Richardson-Gibbs, A. M. (2001). *Strategies for including children with special needs in early childhood settings*. New York: Delmar Thomas Learning Press.

Koech, D. K. (1999). *Totally integrated quality education and training TIQET: Report of the Commission of Inquiry into the Education System of Kenya*. Republic of Kenya.

Kombo, D. K., & Tromp, D. L. (2006). Proposal and thesis writing: An introduction. *Nairobi:* Paulines Publications Africa.

Konrad, M., Joseph, L. M., & Eveleigh, E. (2009). A meta-analytic review of guided notes. *Education and Treatment of children, 32*(3), 421-444).

Kroeger, K., & Sorensen, R. (2010). A parent training model for toilet training children with autism. *Journal of Intellectual Disability Research, 54*(6), 556-567.

Kumar, R. (1999). *A Step by Step Guide for Beginners.* Research Methodology. London: Sage.

Kuyini, A. A. R., & Abosi, O. (2011). The 2nd Generation Street Children (SGSC) in Accra: Developing Teaching Strategies to Enhance Positive Learning Outcomes in Schools. *World Journal of Education, 1*(2), 161-171.

Leedy, P. D., & Ormrod, J. E. (2005). *Practical research.* United States: Pearson.

Lynch, K., & Star, J. R. (2014). Teachers' views about multiple strategies in middle and high school mathematics. *Mathematical Thinking and Learning, 16*(2), 85-108.

Marczyk, G., DeMatteo, D., & Festinger, D. (2005). *Essentials of research design and methodology*. Hoboken: John Wiley & Sons, Inc.

Marder, T., & Fraser, S. (2012). *Evidence-based practice for special education teaching students with autism*. Retrieved from: http://education.jhu.edu/PD/new horizons/Journals/specialed journal

Mathur, S. R., & Rutherford, R. B. (1996). Is social skills training effective for students with emotional or behavioral disorders? Research issues and needs. *Behavioral Disorders*, *22*(1), 21-28.

Matson, J. L, & Hammer, D. (1996). Assessment of social functioning. In J.W. Jacobson & J. A. Mulick (Eds.), *Manual of diagnosis and professional practice in mental retardation* (pp. 157- 163). Washington, DC: American Psychological Association.

Maulik, P. K., Mascarenhas, M. N., Mathers, C. D., Dua, T., & Saxena, S. (2011). Prevalence of intellectual disability: a meta-analysis of population-based studies. *Research in developmental disabilities, 32*(2), 419-436.

Mays, N. M., & Heflin, L. J. (2011). Increasing independence in self-care tasks for children with autism using self-operated auditory prompts. *Research in Spectrum Disorders,* 5(4), 1351–1357.

McMary, S., & Sarah J. (2005). *What successful teachers do in inclusive classrooms: Research based teaching strategies that help special learners succeed*. California: Corwin Press.

109

Meador, D. (2018). *How effective instructional strategies can boast students learning.* University of Pennsylvania: University Press.

Mills, A. A. (2019). Inclusive Education for children with Intellectual Disability (ID) in Ghana. *Advances in Social work, 19*(2), 329-348.

Ministry of Education, (2001). *Special needs education support project (SNESP) Module 2: A Guide for teaching Learners with mental retardation.* (1st Draft) Voluntary Service Overseas (VSO) in Conjunction with MoE.

Mitchell, D. (2015). Inclusive education is a multi-faceted concept. *Center for Educational Policy Studies Journal, 5*(1), 9-30.

Ncube, A. C. (2006). *Some major problems of children with severe learning difficulties in developing adaptive behaviour: Some implications for teachers.* Unpublished research paper: Schools Psychological Services and Special Needs Department, Zimbabwe.

Obi, F. B., & Avoke, S. K. (2007). Equalizing Educational Opportunities for the Nigerian-Ghana Blind Girl-Child. *International Journal of Educational Research, 3*(1), 89-96.

Ocloo, M., Hayford, S., Agbeke, W., Gadagbui, G., Avoke, M., Boison, C., Oppong, A., Essel, J. (2002). *Foundations in special education:* The Ghanaian perspective. Cape Coast: Nyakod Printing Works.

Ogunleye, Y. O. (2014). *Impact of Collaborative Intervention Programme on Pre-Primary and Primary School Teachers' Awareness, Acquisition and Utilization of educational Research Findings in Oyo State, Nigeria* (Doctoral Dissertation).

Okyere, B. A., & Adams, J. S. (2003). *Introduction to special education: An African perspective.* Accra: Adwinsa Publication.

Okyere, C., Aldersey, H. M., Lysaght, R., & Sulaiman, S. K. (2019). Implementation of inclusive education for children with intellectual and developmental disabilities in African countries: a scoping review. *Disability and rehabilitation, 41*(21), 2578-2595.

Owusu, I., Enoch, A., Mprah, W. K., & Vampere, H. (2018). Factors Influencing Parents' Perceptions on the education of children with Disability in the Wa West District of Ghana. *International Journal of Special Education, 33*(3), 675-686.

Parahoo, K. (1997). *Nursing research: principles, process and issues*. Palgrave: Macmillan.

Pierangelo, R., & Giuliani, G. (2008). *Teaching students with autism spectrum disorders: A step-by-step guide for educators*. Thousand Oak: Corwin Press.

Puri, M., & Abraham, G. (Eds.) (2004). *Handbook of inclusive education for educators, administrators and planners: Within walls, without boundaries.* New York: Sage.

Quartey, S. M., & Awoyemi, M. O. (2002). *Research methodology in education*. Ghana: K "N: AB Ltd.

Reynolds, T., & Zupanic, C. E. (2011). *Applied behavour analysis intellectual disabilities.* Retrieved from

http://www.mentalhelp.net/poc/viewdoc.php?type=doc&id=10366&cn=208

Ruhl, K. L., Hughes, C.A., & Schloss, P. J. (1987). Using the pause procedure to enhance lecture recall. *Teacher Education and Special Education*, *10*(1), 14-18.

Rutere, R. K. (2013). *Effectiveness of teaching methods for daily living skills to learners with mental retardation in special units in primary schools, Kasarani sub country, Kenya.* Unpublished thesis. Kenyatta University.

Ruthven, K., Hennessy, S., & Brindley, S. (2004). Teacher representations of the successful sue of computer-based tools and resources in secondary-school English, Mathematics and Science. *Teaching and Teaching Education, 20*(3), 259-275.

Salawu, I. O. (2000). *Introduction of instructional materials and basic processes in Education*. Ogunsanya Lagos: Andrian Publication Series.

Scholl, G. T. (1986). *Foundations of education for blind and visually handicapped children and youth: Theory and practice*. American Foundation for the Blind.

Sediyani, T. Yufiarti, & Hadi, E. (2017). Integration of Audio Visual Multimedia for Special Education Pre-Service Teachers' Self Reflections in Developing Teaching competencies. *Journal of Education and Practice ISSN*, 2222-1735.

Seifert, K., & Hoffnung, A. J. (1991). *Child and adolescent development.* London: Sage.

Shaughnessy, J. J. & Zechmeister, E. B. (1990). *Research methods in psychology*. New York: McGraw- Hill.

Skinner, B. F. (1987). Whatever happened to psychology as the science of behaivour? *American psychologist, 42*(8), 780.

Taube-Schiff, M., & Serbin, L. A. (2006). The case of a 10-year-old boy presenting with cognitive delays and behaivoural problems: working with a developmentally challenged family. *Clinical Case Studies, 5*(4), 345-360.

Turnbull, A. P., Turnbull, H. R., Wehmeyer, M. L., & Shogren, K. A. (2007). *Exceptional lives: Special education in today's schools*. Columbus, OH: Merrill.

United. States. Department of Education (2003). *Proven methods: Questions and answers on No Child Left Behind.* Washington: DC: Author.

Vanderpuye, I., Gyimah, E. K., & Deku, P. (2009). Preparation for inclusive education in Ghana. *Ghana Journal of Education, 1*(1), 11-21.

Wehmeyer, M., & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation or learning disabilities. *Exceptional children*, *63*(2), 245-255.

Wolcott, H. F. (1990). Making a study "more ethnographic". *Journal of Contemporary Ethnography, 19*(1), 44-72.

Wood, S., & Shears, B. (2018). *Teaching children with severe learning difficulties: a radical reappraisal*. London: Rutledge.

Yekple, Y. E. (2008). *Independence living for children with intellectual disabilities.* Winneba: *Department of special education.* University of Education Salt and Light & Co.

Yekple, Y., E, Deku, P., Offei, N., Mensah, A., K., Dogbe, D., S., Mamah, V., Y., Mensah, F., A. & Acheampong, E., K. (2015). *Exceptional learners; An introduction to special education*. (3rd ed). Winneba: Department of Special Education. University of Education Winneba: Watered Garden Printing Press.

Zigler, E., & Hodapp, R. M. (1991). Behavioral functioning in individuals with mental retardation. *Annual Review of Psychology*, *42*(1), 29-50.

114

APPENDICES

APPENDIX A

QUESTIONNAIRE FOR TEACHERS

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Research Instrument for Teachers

I am an M.Phil. student of the University of Cape Coast offering Special Education in the department of Educational and Psychology, College of Education Studies. I am embarking on a study that focuses on instructional strategies for teaching adaptive skills to learners with Intellectual Disabilities (IDs). The goal of the study is to find out how effective the instructional strategies teachers use in teaching adaptive skills to learners with intellectual disabilities in the Unit Special Schools in Ghana are. The study is purely academic-oriented, and as such, I would like to assure you that your responses would not be used for any other purpose other than what has been indicated. For the purpose of improving the quality of the study, you are humbly requested to take your time to read and understand the items on this instrument before you respond to them. You are not to write your name anywhere in the questionnaire. Objective responses offered will be highly appreciated. Please, read carefully the instruction(s) under each section of the instrument to assist you in your responses.

Thank you so much for your willingness to participate in this study.

Mary Osei.

PLEASE TICK (√) THE APPROPRIATE RESPONSE AND PROVIDE

ANSWERS WHERE NECESSARY

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF

TEACHERS

1.   Gender:

Male [ ]

Female [ ]

2.   Age Range:

Less than 22 years [ ]

22 – 40 years [ ]

41 years and above [ ]

3.   Marital Status:

Single [ ]

Married [ ]

Separation [ ]

Divorced [ ]

Widow/Widower [ ]

4.   Academic Qualification: (*Please tick (√) your highest qualification*)

Diploma [ ]

First Degree [ ]

Master's Degree [ ]

PhD [ ]

Any other (*Please, specify*)……………………… …………………..

5.   Area of specialisation………………………………………………..

6.   Teaching Experience (Years):

Less than 1year [ ]

 One (1) to 4 years [ ]

Five (5) years and more [ ]

SECTION B: ADAPTIVE SKILLS TAUGHT BY TEACHERS

The table in this section contains various adaptive skills teachers are likely to teach learners with intellectual disability. Kindly indicate by ticking (√) the ones you teach.

Adaptive Skills	YES	NO
Self-Care: Do you teach the following adaptive skills in your school?		
Dressing		
Bathing		
Grooming		
Feeding		
Buttoning/unbuttoning		
Zipping		
Washing of hands		
Oiling		
Combing		
Communication Skills:		
Verbal communication		
Non-verbal communication skills		

117

Social Skills:		
How to make friends in class		
Learning the names of teachers		
Learning the names of different types of food.		
Learning names of days of the week.		
Names of activities they do in school and at home		
Functional academics:		
Reading		
Writing		
Math skills necessary for everyday life (buying and getting changed)		
Health and Safety:		
Brushing of teeth		
Washing of clothes		
Bathing at least 2 times a day		
Drinking clean water		
Washing of hands before and after visiting the washroom		
Community Use:		
How to shop in the market		
How to cross the road		
How to use public transportation		
How to greet elderly people in the community		

118

SECTION C: INSTRUCTIONAL STRATEGIES EMPLOYED BY TEACHERS TO TEACH ADAPTIVE SKILLS TO LEARNERS WITH INTELLECTUAL DISABILITIES

The following are some instructional strategies that can be used to teach adaptive skills to learners with ID. Kindly indicate by ticking (√) the extent to which you use any of the adaptive skills.

Statements	Always	Sometimes	Hardly	Never
Cooperative teaching				
Direct instruction/ teacher directed approach				
Peer tutoring				
Team teaching				
Interactive teaching				
Augmentative Alternative Communication (AAC)				
Modelling				
Chaining (backward and forward)				
Group Learning				

119

SECTION D: THE INSTRUCTIONAL STRATEGIES THAT ARE MOST EFFECTIVE IN TEACHING ADAPTIVE SKILLS

Below are instructional strategies that can be used in teaching adaptive skills. Kindly, indicate by ticking (√) the ones that are most effective, effective, less effective, and not effective in teaching adaptive skills.

Instructional strategies	Most effective	Effective	Less effective	Not effective
Cooperative teaching				
Direct instruction/ teacher directed approach				
Peer tutoring				
Team teaching				
Interactive teaching				
Augmentative Alternative Communication (AAC)				
Task Analysis				
Modelling				
Chaining (backward and forward)				
Group Learning				

120

SECTION E: USE OF TEACHING AND LEARNING MATERIALS IN TEACHING ADAPTIVE SKILLS

The table below contains various teaching and learning materials that teachers are likely to use when teaching adaptive skills to learners with intellectual disability. Kindly indicate by ticking (√) Yes/No to the ones you use.

Teaching and learning materials	Yes	No
Audio aids		
Visual aids		
Audio- visual aids		

SECTION F: CHALLENGES TEACHERS ENCOUNTER WHEN USING INSTRUCTIONAL STRATEGIES IN TEACHING ADAPTIVE SKILLS

As a teacher, you are likely to face some challenges in using instructional strategies to teach adaptive skills. Below are some challenges. Kindly, indicate by ticking (√) the ones you Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree with.

Statements	SD	D	N	A	SA
Inadequacy of teaching and learning materials.					
Lack of professionalism					
The curriculum content not being relevant.					
Lack of classrooms and learning environment					
Negative attitude towards teachers					
Learners forgetting what they learn					
Lack of motivation and poor salary					
Poor Salary					
High Student - Teacher ratio					
Stigma and discrimination attached to the education of persons with special educational needs and disabilities					

121

APPENDIX B

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES-EEB/ucc.edu/v3/19-30

Date: March 4, 2019

Your Ref: ....

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Mary Osei ....,..., Reg. No.EF./SPP/17/0002 is an M.Phil. / Ph.D. student in the Department of Education and Psychology.......... in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / She wishes to undertake a research study on the topic:

Effectiveness of instructional strategies for teaching adaptive skills for learners with intellectual disabilities in special unit schools in Ghana

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

APPENDIX C

CONSENT FORM

You are invited to participate in a research study. Please, read this consent form so that you understand what your participation will involve. Before you consent to participate, please ask any questions to be sure that you understand what your participation will involve.

Research Topic: "Effectiveness of instructional strategies in adaptive skills to learners with intellectual disabilities in the unit special schools in Ghana"

Researcher's Name: **Mary Osei**

Principal Supervisor: **Prof. Emmanuel Kofi Gyimah**

Co Supervisor: **Dr. Edward Kofi Ntim**

Department of Education and Psychology, University of Cape Coast, Ghana.

General Information about the Research

This questionnaire is intended to find out the effectiveness of instructional strategies in adaptive skills to learners with intellectual disabilities in the unit special schools in Ghana. Your response to this interview will be used for academic purposes only. You are therefore not to write your name anywhere on the question paper.

Possible Risks and Discomforts

The potential risks and discomforts to you in this study are low, but the nature of the questions asked might bring back unpleasant memories while responding to questions. If this happens you may skip answering a question or stop participating in the study entirely or permanently. Your participation is voluntary.

123

Possible Benefits

There are no direct benefits to you from the study participation. However, this research may provide you with the opportunity to reflect upon your experience in the effectiveness of instructional strategies in teaching adaptive skills to learners with intellectual disabilities. Also, results of the study would also help in revealing challenges teachers face in teaching adaptive skills in an attempt to achieve the goals of IEP of the students.

Confidentiality

Please be assured that no names or any other form of identity is required of you. Every effort will be made to ensure confidentiality for all information you supply during the research. Any information provided will be handled with care and used for academic purpose only.

Compensation

There will be no material or direct compensation for participation in the study since the study will not take so much time and does not pose any danger to the respondents.

Voluntary Participation and Right to Withdraw

Participation in this resurface is absolutely voluntary and you under no compulsion to take part. You may withdraw as you so wish at any point in the study. You may also choose not to answer specific questions.

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of the School of Graduate Studies, University of Cape Coast. If you have any questions about your rights as a research participant you can contact the 1RB Office between the hours of 8am-5pm.

124

Volunteer agreement

The above document describing the benefits and procedures for the research titled: "Effectiveness of instructional strategies in teaching adaptive skills to learners with intellectual disabilities in unit special schools in Ghana" has been read and understood by me. I have been given an opportunity to ask any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

……………………….   …………………………………………..

Date   Name and signature or thumbprint

        If volunteers cannot read the form themselves, a witness must sign here: I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

…………………..   ………………….................

Date   Signature or thumbprint.

        I certify that the nature and purpose, the potential benefits, and possible low or no risks associated with participating in this research have been explained to the above individual.

………………………   …………………………………………

Date   Signature of person who obtained consent

APPENDIX D

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 233-3321*32440/4 & 32480/3
Direct: 033 20 91697
Fax: 03321-30184
Telex: 2552, UCC, GH.
Telegram & Cables: University, Cape Coast
Email: edufound@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA
29th May, 2019

Our Ref:

Your Ref:

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

LETTER OF INTRODUCTION
MS. OSEI MARY

We introduce to you Ms. Osei, a student from the University of Cape Coast, Department of Education and Psychology. She is pursuing Master of Philosophy degree in Special Education Psychology and she is currently at the thesis stage.

Ms. Osei is researching on the topic:

"Effectiveness of Instructional Strategies in Teaching Adaptive Skills to Learners with Intellectual Disabilities in the Unit Special Schools in Ghana."

She has opted to collect or gather data at your institution/establishment for her Thesis work. We would be most grateful if you could provide her the opportunity and assistance for the study. Any information provided would be treated strictly as confidential.

We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Theophilus Amuzu Fiadzomor
Senior Administrative Assistant
For: HEAD

126