IMPACT OF EXPLICIT AND VISUAL INSTRUCTIONAL STRATEGIES ON VOCATIONAL INTEREST OF PUPILS WITH MILD INTELLECTUAL DISABILITY IN SELECTED SCHOOLS IN IBADAN, NIGERIA

BY

AYODELE, ADENIKE ABOSEDE
MATRIC. NO: 55694
B.Ed. (Hons), M.Ed, UNIVERSITY OF IBADAN, IBADAN

A THESIS IN THE DEPARTMENT OF SPECIAL EDUCAITON
SUBMITTED TO THE FACULTY OF EDUCATION
IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE AWARD OF THE DEGREE OF
DOCTOR OF PHILOSOPHY

OF

THE UNIVERSITY OF IBADAN, IBADAN
NIGERIA

SEPTEMBER, 2011

ABSTRACT

Vocational training is important in achieving economic empowerment and independence in persons with intellectual disability. However, pupils with intellectual disability often enter the labour market in Nigeria without receiving vocational training resulting into serious challenges to these pupils. Several existing research on pupils with intellectual disability focused on improving academic performance, while few studies have been done on enhancing their vocational interest using Explicit and Visual Instructional strategies. This study, therefore, investigated the impact of Explicit Instructional Strategy (EIS) and Visual Instructional Strategy (VIS) in enhancing the vocational interest of pupils with mild intellectual disability in Ibadan, Nigeria.

The study adopted a pretest-posttest control group, quasi experimental research design with a 3x2 factorial matrix. Thirty primary five pupils with mild intellectual disability were purposively selected from three special schools for the handicapped in Ibadan, Oyo State, Nigeria. Selected pupils in each school were randomly assigned to the two experimental groups (EIS and VIS) and control group. Data were obtained using Slosson's Intelligence Test (r=0.86), Reading-Free Vocational Interest Inventory (r=0.90) and Socio-Economic Status Scale (r=0.87). Participants in the experimental groups were exposed to eight weeks of vocational interest training using EIS and VIS strategies. Five hypotheses were tested at 0.05 level of significance while data were analysed using descriptive statistics, t-test, Analysis of Covariance and Duncan post hoc test.

The experimental groups (EIS and VIS) had higher vocational interest scores than those in the control group ($F_{(2,29)}$=8.04; $p<0.05$). The Duncan post hoc test further showed that each of the three possible pairs of instructional groups was significantly different from one another ($p<0.05$). The group exposed to VIS had the highest post-test score ($\bar{x}$=67.97) than the EIS ($\bar{x}$=60.32) while the least post-test score was obtained by the control group ($\bar{x}$=60.32). There was significant main effect of socio-economic status in enhancing vocational interest of pupils with intellectual disability ($F_{(1,29)}$=4.454; $p<0.05$). Pupils with high socio-economic status background had higher vocational interest score ($\bar{x}$=65.73) than those with low socio-economic status. There was no significant effect of gender in enhancing of vocational interest of pupils with intellectual disability. The females obtained higher post-test mean score ($\bar{x}$=64.92) than their male counterparts ($\bar{x}$=64.04).

Visual Instructional Strategy and Explicit Instructional Strategy were effective in enhancing the vocational interest of pupils with mild intellectual disability. Therefore, the two strategies should be adopted for use in enhancing vocational interest of pupils with intellectual disability, both in the general education classroom and in special education settings. Also, the government should organise in-service trainings like seminars, workshops and conferences for primary school teachers on the use of the instructional strategies in other to enhance the vocational interest of pupils with intellectual disability.

Key words: Intellectual disability, Visual instructional strategy, Explicit instructional strategy, Vocational interest, Socio-economic status

Word count: 445

ii

DEDICATION

This dissertation is dedicated to the Almighty God the father of light in whom there is no variable or shadow of turning. To Him be all the glory and honour now and forever more.

CERTIFICATION

I certify that this work was carried out by Mrs.A. A. Ayodele in the Department of Special Education, University of Ibadan under my supervision.

……………………….. ....

Date   Supervisor
Dr. J. T. Eni-Olorunda
Senior Lecturer
Department of Special Education,
University of Ibadan,
Ibadan, Nigeria.

TABLE OF CONTENTS

CHAPTER THREE: RESEARCH METHODOLADY

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.1   Background to the Study

The attainment of adulthood in any society is equated with the achievement of self-sufficiency and independence. Vocation plays a central role in the lifestyle of all people with or without disability, because of its financial rewards, independence as well as family and community acceptance. The shift from institutionalization to normalization principle of managing persons with intellectual disability, has led to emphasis on their rights to a normal and good quality of life (Rusch, Huges, Agran Martins andJohnson, 2008, Rusch, 2009). Unfortunately, most persons with intellectual disability in Nigeria are handicapped by dependency on others, lack of economic empowerment, incarceration, and high rate of unemployment. They attain adulthood and sometimes reach old age, without any prospect of achieving independence or self-sufficiency.

All young adults face important questions about what to do with their lives, whether to attend college or technical school, whether to work as bricklayer or an accountant, but for the persons without disabilities, answering those questions involves choosing from a number of options. By contrast, the young adult with intellectual disability often has fewer options from which to choose. Occupational choices decreases when persons with disabilities have limited skills, they may decrease even more due to the nature of the disability. For most persons with intellectual disability, obtaining and holding a job is a major life challenge and goal. Since, they are conceived as a developmental organism, with a right to work and social participation.

Vocational training is therefore of critical importance if persons with intellectual disability are to be prepared for meaningful, independent and productive lives. Vocational development involves the interplay of numerous variables beyond disability such as an individual's interest, abilities, family, education, socioeconomic status, ethnic identity, culture, gender, and self efficacy. These mediating variables affect the choice of persons with intellectual disabilities, deliberate effort should be made to expose persons with intellectual disability to wide range of interventions that would enhance their vocational skills. The choice of these interventions should depend on the individual interest, characteristics, the context in which they live, belief structures, potential environments, as well as behaviours necessary in work place.

1

Research findings have shown that the key component of vocational development activities for elementary-aged pupils, students, adolescents, and young adults is training in decision making. Persons with intellectual disability should be taught decision making skills before beginning career development activities, since the ability to indicate a preference and choose an outcome that is in one's self-interest is a key component of vocational development (Wadsworth & Cocco, 2003; Sowers, 2002; & American Academy of Pediatrics, 2000).

Vocational interest has been identified as patterns of likes, dislikes, and indifference regarding vocational relevant activities. It is a process undertaken by children and adolescents to test ideas about what tey want to be when they grow up. Vocational interest refers to the preference or choice made by an individual among other alternatives available. Occupations and career interest predict career choices actual performance. People often select job on the basis of their experiences or exposures to the world of work. They can be happy and comfortable if their jobs are congruent with their interests. Vocational interests can be Realistic, Investigative, Artistic, Social, Enterprising and, or Conventional (RAISEC) (Abdullah, Baker & Mohamed, 2009 & Holland, 1992). In addition, young people largely form their interests and attitudes on vocation and work as a result of interaction with the family. The family is a place where children learn to interpret reality; parents serve as significant interpreters for their children on information about the world, their interest and abilities.

Preparing students for the workforce is an important role that schools perform, which enable students fulfil their potential at every stage of development. In response to the widely accepted normalization principle, current educational systems for adolescents tend to encourage independent behaviour. Unfortunately, the traditional school programmes does not adequately address the skills that have to do with quality of life such as making choices, planning for the future, autonomy, self-concept, motivation to work, empowerment, and personal responsibility for one's life are rarely mentioned. Most existing programmes teach simple manual tasks, an approach that does not incorporate the students' needs or preferences; this is especially true for persons with intellectual disability. Despite widespread recognition of the need for vocational and career development services and programmes, these areas have not received priority in most educational facilities, and this is especially true of special education. (Hughes & Carter, 2000).

Pupils with intellectual disability are slower in learning how to learn and find it harder to apply what they learned to new situations or problems. This is because they often have problems with attention, perception, memory, problem solving and logic thought (The ERIC Clearing house on Disability and Gifted, 2010). Most of them do not respond positively to the traditional education programme structure or instruction, many have needs and interests that require alternative curricula, alternative modes of instruction, and alternative organizational structures. When these alternative education programmes are not available to these pupils, many will lose interest, become disruptive, fail, or drop out.

Carefully planned and implemented educational alternatives increase the probability of success for non-traditional students. It has been advocated that the teachers of exceptional pupils must use special motivational methods that will compensate for their deficiency, so that learning can be more effective. Since pupils with intellectual disability learn most effectively when the instruction process is highly structured and direct and when it is within a task analytic framework, whereby the skills to be taught and learned are broken into conceptual before actual instruction. Instructional methods that that are scientifically-based research and evidence-based practice provide educators with tools to effectively teach pupils with intellectual disability. They required these special services and educational programmes in other to achieve a desirable level of independent life. These school-based learning opportunities are particularly important for people with intellectual disability who, unlike their peers without cognitive disability, have limited opportunities to participate in social, work, volunteer, and community activities; and thus have limited exposure to occupational role models (Ademokoya 1994, Eni-Olorunda 1998, Schunk, 2000, Sowers, 2002 & US Department of Education, 2006).

The process should begin at school, since the quality of education which the special need child gets to a large extent determines his vocational aspirations. There is therefore the need for special schools in Nigeria to provide vocational education to children from primary class three upwards, since many of these pupils may not proceed to Junior Secondary School level academically, hence the need to orientate them towards vocations they can do is very important (Obani, 2003; Mba, 1995). Vocational exploration activities properly implemented at the elementary- and middle-school levels can help pupils with intellectual disability to increase self-

understanding of their abilities, interests, values, and goals thereby preparing them to make vocational choices based on their interest and ability in young adulthood.

In designing educational programmes for persons with intellectual disability, it is important to note that they have deficit in adaptive skills which make them lack ability to plan for learning. The language and metacognitive skills necessary in learning which naturally occur in their peers without intellectual disability oftentimes not as developed in them. This makes them to be at disadvantage over their peers that have knowledge about different vocations and what they want to be or do in life.

A lot of research has been done using different instructional strategies to enhance the academic performance, social skills, self help skills etc of pupils with intellectual disability, not much have been done on the development of their vocational interest. It is, therefore necessary to offer instruction and practice in the skills necessary for vocational interest, ability, strength and the type of support the person needs in order for them to become independent in life as well as productive member of the society. Two instructional strategies were utilized in this study; these are explicit and visual instructional strategies.

Teaching vocational interest effectively to pupils with intellectual disability requires a strategy that can achieve specific learning outcome like explicit instructional strategy. Explicit instruction is a carefully designed of materials and activities that provide structures and supports that enable all students to make sense of new information and concepts. It directs pupils' attention towards specific learning in a highly structured environment thereby producing specific learning outcomes. Topics and contents are broken down into small parts, taught logically and individually directed by the teacher. The strategy involves explanation, demonstration and practice. Pupils are provided with guidance and structured frameworks (Edward-Grooves, 2002).

Explicit teaching is useful for introducing new topics and specific skills. It provides guided instruction in the basic understanding of required skills, which pupils can then build on through practice, collaboration, repetition, hands on activities and developmental play (Instructional Strategy Online 2009).

Visual instruction on the other hand is the planning, preparation, and use of devices or materials that involve sight for educational purposes. It involves the use of all types of visual aids such as the excursion, flat pictures, models, exhibits, graphs,

4

stereographs, stereopticon slide, motion pictures, (motion pictures, computers), objects, pictures, illustrations, maps and charts. They played important part in teaching for centuries and have long been recognized by progressive teachers as not only valuable but indispensable.

Visual information presented by the teacher to accompany the lesson can support the major points presented, maintain attention, and improve comprehension. Graphics, actual scenes or dioramas, pictures, and large text fonts can facilitate understanding and comprehension, as well as help hold attention. Also, Visual – spatial arrangement of information containing words or statements connected graphically can help students see meaningful hierarchical and comparative relationships in lesson been taught. It also helps pupils to consequently retain what is leant. Many researchers have tried to point at the importance of pictures and other visuals in instruction (Watson 2000, and Iroegbu 2006) stressed the importance of visuals in instruction. They noted that most people learn about ten percent of a lesson through listening, but over eighty percent from what they see or visualize. They also found out that learners remember about 20% of what they hear but about 50% of what they see and hear. The use of visuals in education has advantages: it requires the pupils to visualize and manipulate learning (Ndukwu2002).

Studies in the psychology of learning suggest that the use of visuals in education has several advantages. Since, all learning is based on perception, the process through which the senses gain information from the environment. The higher processes of memory and concept formation cannot occur without prior perception. People can attend to only a limited amount of information at a time; their selection and perception of information is influenced by past experiences. Researchers have found that, other conditions being equal, more information is taken in if it is received simultaneously in two modalities (vision and hearing) rather than in a single modality. Furthermore, learning is enhanced when material is evident and organized. These findings showed the value of visuals in the educational process. They can facilitate perception of the most important features, especially when it is carefully organized. Visual displays can be very effective for teaching abstract concepts to students with disabilities (Helson, 2009).

Researches on the influence of parents and the family on children's career interest, choice and development have demonstrated links between career development and factors such as socioeconomic status, parents' educational and

occupational attainment, and cultural background as well as the child gender (Kerka, 2010).

Socio-economic status has been identified as one important intervening variable in this study. Studies have found that socio-economic status affects students' outcomes because the socio-economic background of a person has a link on his/her educational and career development. The negative effects of low socio-economic can interfere with a child's cognitive development. It has been discovered that families with high socioeconomic status often have more success in preparing their young children not only for school but for vocation as well because they typically have access to a wide range of resources to promote and support young children's development. Research indicated that children from low socio-economic status households and communities develop academic skills more slowly compared to children from higher socio-economic background because they have little or no support at home due to poverty and the child handicapping condition (McNeal, 2001, Ainley 2003, Thompson and Fleming 2003).

Gender has also been identified as a factor in the development of vocational interest. In general, studies have shown that gender plays an important role in career development, studies have showed that students' career interest patterns vary across gender. Male and female career choices are different because of the difference in their self-concepts. There is a gender-role stereotyping in expressing vocational interest among gender whereby male preferred realistic and investigative occupations and female on the other hand preferred social type of occupations. Girls tend to develop interest in in-door activities whereas boys tend to develop interest in out-door and adventurous vocations. Falaye (2001) noted that difference between gender encompass difference and uniqueness in areas of strength, rate of attainment and other functional capabilities.

The ultimate goal of empowering persons with intellectual disability are to make them lead successful and personally fulfilling lives now and in the future, to express preferences and exercise control over their lives and function as independently as possible in an integrated society. These self-directing opportunities and abilities are very crucial for persons with intellectual disability. It is in light of this background, that the problem of this study was conceived to examine the impact of explicit and visual instructional strategies on vocational interest of pupils with intellectual disability.

1.2 Statement of the Problem

Pupils with mild intellectual disability experience significant limitations in intellectual functional and adaptive behaviour which invariably affect their ability to develop and sustain vocational interest. Some of them do not possess the capacities which others possess to choose realistic vocation based on their interest.

The immediate need for this study stemmed from the fact that many educators and researchers have concentrated their efforts on meeting the academic needs of these pupils at the expense of their vocational development and vocational interest. This study is meant to address this area of imbalance.

This study investigated the impact of explicit and visual instructional strategies in enhancing vocational interest of pupils with mild intellectual disability. And also, the impact of socio- economic status and gender on pupils' vocational interest were also determined.

1.3 Purpose of the Study

The study examined the impact of the explicit and visual instructional strategies on the development of vocational interest of pupils with mild intellectual disability.

The study also examined which of the treatment strategies was more effective in developing the vocational interest of pupils with mild intellectual disability.

The study investigated the moderating effect of gender and socio-economic status in the development of vocational interest of pupils with mild intellectual disability using the two instructional strategies.

Finally, the study meant to enhance the vocational interest of pupils with mild intellectual disability.

1.4 Significance of the study

This study is significant in that its findings would help pupils with mild intellectual disability develop vocational interest, express preferences and exercise control over their lives. It would also enable them to know that they can contribute their quota to the economic development of the society because they can be gainfully employed. The study would enable the parents of pupils with mild intellectual disability to know that their children can work, be independent and productive members of the society.

7

The study would also expand the frontier of knowledge in the instructional approaches for pupils with intellectual disability and challenge the interests and practical capacity of teachers, curriculum designers, policy markers, students and all stakeholders in the education of pupils with intellectual disability.

This study is vital to curriculum planners, educators, specialists, researchers, parents and other professionals in the area of instructional approaches, in that they will be able to realize the need to look beyond the traditional educational programmes for pupils with intellectual disability and work towards preparing them for vocation they can do. It would also provided them with needed empirical information.

The study would facilitate effective implementation of relevant educational programmes for pupils with intellectual disability. It would also serve as intellectual source and data bank for future researches and it would also educate employers of labour on the job prospect of persons with intellectual disability.

This study is also significant because the recommendations would help Federal, State and Local Governments to see the need to rapidly structure a comprehensive vocational/career educational programme for pupils with intellectual disability that will run from kindergarten through secondary school. Finally, it would help them to see the need to formulate new policies that will ensure proper implementation of these programmes for persons with special needs.

1.5   Hypotheses

The following null hypotheses were tested at the 0.05 level of significance:

Ho 1. There is no significant main effect of treatment on vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional Strategy and those in the control group.

Ho 2. There is no significant main effect of socio-economic status on vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional and those in the control group.

Ho 3. There is no significant interaction effect of treatment and socio-economic status on vocational interest of pupils with mild intellectual disability.

Ho 4. There is no significant difference in the pre-test vocational interest score of male and female pupils with mild intellectual disability exposed to Explicit Instructional Strategy and Visual Instructional Strategy.

Ho 5. There is no significant main effect of gender on vocational interest of pupils

with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional and those in the control group.

1.6 Scope of the Study

This study is specifically designed to enhance the vocational interest of pupils with mild intellectual disabilities using both visual and explicit instructional strategies. The study is delimitated to three special primary schools in Ibadan Metropolis, Oyo State, Nigeria.

1.7 Operational Definition of Terms

The terms defined in this study are not universal but operational.

Explicit Instruction: In this study, this is a teaching model that involves the teacher breaking down the learning tasks into sub-units and presents carefully designed lessons in a step-by-step form to the pupils.

Visual Instruction: This refers to a teaching model that involves the use of concrete object, pictorial or adjunct aids for learning.

Vocational Interest: Ability of pupils with intellectual disability to identify and show a realistic preference or liking for a particular vocation or occupation.

Mild Intellectual Disability: Pupils with mild intellectual disability are those, who have substantial limitation in age appropriate intellectual and adaptive behaviour, which affects not only their educational performance but also their vocational acquisition skills. Their IQ is between 50 and 69, they can learn simple academic skills.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

This chapter reviews the pertinent literature on conceptual issues. In addition, the theoretical and empirical literature on intellectual disability, vocational interest and other variables in the study are also reviewed.

2.1   The Concepts of Disability and Vocational Interest

2.1.1   Definition and Nature of Intellectual Disability

2.1.2   Classification of Intellectual Disability

2.1.3   Characteristics of pupils with Intellectual Disability

2.1.4   Vocational Interest

2.1.5   Factors Influencing Vocational Interest

2.1.6   Vocational Status of Persons with Intellectual Disability

2.2   Theoretical Framework

2.2.1   Explicit Instructional Strategy

2.2.2   Visual Instructional strategy

2.3   Theoretical Review

2.3.1   Career Development Theories and Disabilities

2.3.2   Career Development and Decision Making Theories

2.4   Empirical Studies

2.4.1   Explicit Instructional Strategy

2.4.2   Visual Instructional Strategy

2.4.3   Socio-Economic Status

2.4.4   Gender Issue

2.5   Vocational Status of Persons with Intellectual Disability

2.6   Summary of the Review

2.7   Conceptual model

2.1.1 Definition and Nature of Intellectual Disability

Intellectual disability/mental retardation has often been viewed as a complex phenomenon, fundamental beliefs about it changes regularly over time depending on the purpose and discipline involved. It has been defined and renamed many times throughout history such as, feeble-mindedness, mental deficiency, mental handicap, mental impairment developmental delay etc were used as labels during the later part of the last century and in the early part of this century. Consistent across all definitions are difficulties in learning, social skills, everyday functioning, and age of onset (during childhood). Intellectual disability is a challenge and potential source of stress to the family of an individual with this disorder. From identification through treatment or education, families struggle with questions about the future. The intellectually disabled have been the subject of myth and confusion throughout history (The ERIC Digest 2002). Many misconceptions remain, making it difficult to initiate change, particularly in large institutions. Some misconceptions lead to institutionalisation of retarded people who do not belong in such a setting and who suffer deleterious effect.

An accurate and consistent definition of intellectual disability is critical because of its impact on the prevalence and the number of those with intellectual disability, despite the importance of consistency, intellectual disability is not always defined in the same way across studies or service agencies (Koller, Richardson, Katz, 1984; Brothwick – Duffy, 1994). While some definitions rely on intelligence quotient scores alone to classify individuals with mental retardation, some only use adaptive skills classification and others include both intelligence quotient scores and measures of adaptive skills (Brothwick–Duffy, 1994; Whitman, Hantula & Spence, 1990). In addition, many studies are based on broad categories of either severity (using labels such as mild, moderate, severe and profound mentally retarded) or etiology (utilising the terms cultural/familial and organic mental retardation).

Ainsworth and Baker, (2004) traced the evolvement of intellectual disability from the 19th century work of French physicians Jean-Marc-Gaspard Itard and Edouard Seguin which resulted in a curriculum of sensory, self-care, and vocational skills for intellectually disabled people. Aspects of this "Physiological Method" are still utilized today. According to Sheerenberger (1983), the elements of the definition of mental retardation were well accepted in the United States by 1900. Over the next 30 years, the definitions of mental retardation focused on one of three aspects of

development: the inability to learn, to perform common acts, deficits or delays in social development/competence, or low IQ (Yepsen, 1941). An example of a definition based on social competence was proposed by Edgar Doll who proposed that mental retardation referred to "social incompetence, due to mental subnormality, which has been developmentally arrested, which obtains at maturity, is of constitutional origin, and which is essentially incurable" (Doll, 1953). Fred Kuhlman, who was highly influential in the early development of intelligence tests in the United States, believed mental retardation was "a mental condition resulting from a subnormal rate of development of some or all mental functions" (Kuhlman, 1941).

Through 1876, when Seguin founded what eventually become the American Association on Mental Retardation (AAMR) now the American Association on Intellectual and Developmental Disabilities (AAIDD). The development of intelligence testing by Theodore Simon and Alfred Binet and adaptive skill testing by Richard Doll in the late 20th century which allowed for clinical definitions of intellectual disability followed by scientific advances during the time led to increased understanding of the causes and prevention of intellectual disability, with early work by Wilhelm Griesinger, John L. H. Down, and Asbjorn Folling. To current research on intellectual disability which seeks to improve newborn screening, treat Fragile X syndrome, and reverse brain damage in babies deprived of oxygen (National Institutes of Health, 2009).

AAMR has updated the definition of mental retardation ten times since 1908. Changes in the definition have occurred when there is new information, or there are changes in clinical practice or breakthroughs in scientific research. The 10th edition of Mental Retardation: Definition, Classification and Systems of Supports contains a comprehensive update to the landmark 1992 system and provides important new information, tools and strategies for the field and for anyone concerned about people with mental retardation.

In recent time, there is a shift in the definition of mental retardation from a medical (etiological, clinical, and often custodial) paradigm, to one that was behavioural (psychological, social, and communal) in nature. More recently, a substantial change occurred again in the field of mental retardation/intellectual disability, when the world's oldest organization on mental retardation/intellectual disability officially changed its name from American Association on Mental Retardation (AAMR) to the American Association on Intellectual and Developmental

Disabilities (AAIDD). The name change was as result of many factors such as establishing a new standard in disability terminology, introducing a more socially-acceptable way to address people with intellectual disabilities, moving away from a term that has become offensive to people with disabilities, and being more consistent with terminology currently used in Europe and Canada (American Association on Intellectual and Developmental Disabilities (AAIDD), 2006). The term *intellectual disability* still covers the same population that mental retardation covered.

Intellectual disability is defined by the AAIDD as a disability originating before the age of 18, characterized by significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social, and practical adaptive skills (AAIDD, 2009). A diagnosis of intellectual disability is accomplished using the three methods described in the AAIDD definition: age of the person (below 18 years), scores on intelligence tests, and assessment of adaptive behaviours. Mainstream professional conceptualizes it as a statement about an individual's present level of functioning, with two primary features: limitations in intelligence and limitations in adaptive behaviour.

2.1.2 Classification of Intellectual Disability

Intellectual disability varies in severity, an early classification scheme proposed by the American Association on Mental Deficiency (Retardation), in 1910 referred to individuals with mental retardation as feeble-minded. Committee on Classification, 1910, identified three levels of impairment; *idiot*, individuals whose development is arrested at the level of a 2 year old; *imbecile*, individuals whose development is equivalent to that of a 2 to 7 year old at maturity; and *moron*, individuals whose mental development is equivalent to that of a 7 to 12 years old at maturity.

The conflicting views of the concept of mental retardation resulted in a growing number of labels used to refer to individuals with mental retardation, and a change in emphasis from a genetic or constitutional focus to a desire for a function-based definition, the American Association on Mental Deficiency (Retardation) proposed and adopted a three part definition in 1959. The revised definition led to a five level classification scheme which replacing the previous three level system which had acquired a very negative connotation. The generic terms of borderline (IQ 67-83),

mild (IQ 50-66), moderate (IQ 3-49), severe (16-32), and profound (IQ <16) were adopted. Due to concern about the over or mis-identification of mental retardation, particularly in minority populations, the definition was again revised in 1973 (Grossman, 1973)

In 1992, the American Association on Mental Retardation adopted a new definition which eliminated the severity level classification scheme in favour of one that addresses the type and intensity of support needed: intermittent, limited, extensive, or pervasive. Practically, a child under age 18 must have an IQ $\leq$ 75 and deficits in at least 2 of the adaptive behaviour domains indicated in the definition to obtain a diagnosis of mental retardation.

The educational community adopted their own system of classification, their three level system separated school age children with mental retardation into three groups based on predicted ability to learn (Kirk, Karnes, & Kirk, 1955). Children who were *educable* could learn simple academic skills but not progress above fourth grade level. Children who were believed to be *trainable* could learn to care for their daily needs but very few academic skills. Children who appeared to be *untrainable* or totally dependent were considered in need of long term care, possibly in a residential setting.

DSM-IV retained the severity level classification scheme from the 1977 definition put forth by the American Association on Mental Retardation. The upper IQ limit is 70, and an individual must have delays in at least two of the 10 areas outlined in the 1992 definition. While, Four levels of mental retardation were specified in ICD-10: F70 mild (IQ 50 - 69), F71 moderate (IQ 35 - 49), F72 severe (IQ 20 - 34), and F73 profound (IQ below 20) and IQ should not be used as the only determining factor. Clinical findings and adaptive behaviour should also be used to determine level of intellectual functioning. Two additional classifications were mentioned: F78 other mental retardation and F79 unspecified mental retardation. Other mental retardation (F78) should be used when associated physical or sensory impairments make it difficult to establish the degree of impairment. Unspecified mental retardation (F79) should be used when there is evidence of mental retardation but not enough information to establish a level of functioning (e.g., a toddler with significant delays in development who is too young to be assessed with an IQ measure).

14

A substantial change occurred again in the field of mental retardation/intellectual disability when In January 2007, the world's oldest organization on mental retardation/intellectual disability officially changed its name from American Association on Mental Retardation (AAMR) to the American Association on Intellectual and Developmental Disabilities (AAIDD). AAIDD still adopted the 1992 classification which eliminated the severity level classification scheme in favour of one that addresses the type and intensity of support needed: intermittent, limited, extensive, or pervasive.

2.1.3 Characteristics of children with Intellectual Disability

Intellectual disability is a disability characterized with significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social, and practical adaptive skills, which originates before age 18. In general, people with intellectual disability are less efficient at learning than other people. This impairment in learning efficiency is roughly consistent with overall IQ level. Specific cognitive deficits often exist in such areas as memory, attention, language, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety (The ERIC Digest 2002 & AAIDD, 2009).

Recent researches have shown that the typical characteristics exhibited by children with intellectual disability depend on the severity of the condition. Pupils who are identified with mild intellectual disability lag significantly behind grade-level peers in developing academic skills. Thus, pupils with mild intellectual disabilities are likely to experience significant delay in learning to read and learning basic math skills.

Pupils with mild intellectual disability experience delayed language development, which has a negative influence on their academic achievement. The academic area in which language delay has the most detrimental effect is reading. They also often have significantly delayed in general oral language skills. Thus, even if students with mild intellectual disabilities develop the ability to read individual words and strategies for reading comprehension, they will have difficulty comprehending what they have read because of weak verbal skills in areas such as vocabulary.

Another characterized of pupils with mild intellectual disability is general delays in cognitive development that influence the acquisition of language and academic skills. Three of the most important cognitive skill deficits exhibited by students with mild intellectual disabilities are related to attention, memory, and generalization. Students with mild intellectual disabilities have difficulty with different types of attention, including orienting to a task, selective attention, and sustaining attention to a task. Moreover, pupils with mild intellectual disabilities have difficulty remembering information (short-term memory), they have difficulty generating and using strategies that help facilitate short-term memory.

In addition, pupils with mild intellectual disabilities have difficulty with generalization of information to other material or settings. They may learn a new word when reading material in one subject area but may have difficulty reading the same word in other reading material. Students with mild intellectual disabilities also have difficulty generalizing material learned in one setting to another (e.g. from school to the community). Many of the cognitive characteristics of these students may contribute to difficulty interacting socially. (Rosenberg, Westling, & McLeskey 2010).

Rosenberg, Westling, and McLeskey (2010) discovered that In addition to social difficulties that result from general cognitive deficits, pupils with mild intellectual disabilities share many of the same social difficulties of students with learning disabilities, including the inability to read social cues and interact successfully in conversations, lack of affiliation in school activities, low social status, and negative self-concept. And that these characteristics often lead to lower social status in classrooms and, at times, alienation of students from teachers and peers and lack of affiliation or involvement in school. Moreover, social skills deficits may lead students with mild intellectual disabilities to feel that they are unimportant to peers and teachers and produce feelings that they are not involved in the social community of the school.

Individuals with moderate to severe intellectual disability exhibit the following characteristics;

- will probably need limited to extensive supports;
- they are more likely to have a recognizable syndrome (such as Down Syndrome);

- may "look" different than their non-disabled peers;.
- their development is often significantly delayed;
- they are typically identified as infants or toddlers;.
- most begin receiving special education during the preschool years;
- often need to learn adaptive living skills;
- as adults, most individuals with moderate to severe intellectual disability will not achieve total independence;
- rather, they are likely to continue to need limited to extensive support
- some individuals with moderate to severe mental retardation may be able to succeed in modified competitive employment situations;
- however, many will work in supported, non-competitive settings such as sheltered workshops.

Individuals with profound intellectual disability exhibit the following characteristics;

- will generally need services at the pervasive level, typically throughout their life;
- they are likely to have multiple disabilities, particularly in the areas of mobility and communication;.
- therefore, many use wheelchairs and alternate forms of communication;
- their communication deficits make it difficult to accurately assess their intellectual functioning;
- in educational settings, they may be placed along with students with moderate to severe MR or in their own classroom;
- some adults with this level of retardation remain in institutional settings.

Generally, deficits in cognitive functioning and learning styles that characterised individuals with mild intellectual disability include poor memory, slow learning rates, attention problems, difficulty generalizing what they have learned, and lack of motivation. Others are limitations in self-care skills, social relationships and behavioural excesses. Difficulties accepting criticism, limited self-control, and bizarre and inappropriate behaviours such as aggression or self-injury are often observed in children with intellectual disability. They reach developmental milestones such as walking and talking much later than children in the general population. Some children with intellectual disability are passive, placid, and dependent, whereas others can be aggressive and impulsive. Lack of communication skills may predispose to disruptive

and aggressive behaviours that substitute for communicative language. Some general medical conditions associated with intellectual disability makes pupils with it to exhibit certain behavioural problems such as the intractable self-injurious behaviour associated with Lesch-Nyhan syndrome (Heward, 2006 & Bonnie, 2010).

Szymanski and Hanley-Maxwell (1996) noted that pupils with mild intellectual disability may have some or all of the following characteristics: slower learning rate; fewer learned skills during school; better learning with concrete as opposed to abstract instruction; and deficits in language and communication, interpersonal relationships, and behavioural control. Incidental learning cannot be assumed, and skill generalization and maintenance problems are common.

2.1.4 Concept of Vocational Interest

The concept of vocational interest has a profound effect on career development theory and practice. The most widely recognised linguistic definition of vocational interest is from one of the pioneers of vocational interest measurement Edward Strong. Strong (1943) compared vocational interest to tropisms or activities for which an individual have linking or dislinking and which the individual go towards and away from, continue or discontinue with the status quo, it may or may not be preferred to other interest and may continue over varying interval of time.   In support of this Lent, (1994) define vocational interest as patterns of likes, dislikes, and indifference regarding vocational relevant activities, occupations and career interest predict vocational choices and performance. Vocational interest are crucial in making successful and anticipated satisfaction in life or any job, its central to educative process both as ends and as means. Depending on whether they are positively or negatively directed towards a particular object they are considered to promote or inhibit students behaviour in the classroom, the home, the peer group and ultimately learning and the choice of a career or vocation. It's also considered to influence choices to attend, respond, value, participate and make a commitment to educational activities. Kemjika (1995) explained that interest is crucial in making success and anticipated satisfaction in life or any job.

Holland (1966) however defined vocational interests as the expression of personality in work, hobbies, recreational activities, and preferences. An individual's interests are fundamental to the process of career development because individuals

tend to seek environments in which they can express their interests. Another view of interests, put forward by Hogan & Blake, 1999 is that vocational interests are direct reflection of an individual's identity (i.e., the way we think of ourselves) that is best conceptualized in terms of a person's motives, goals, values, and aspirations, rather than outgrowths of personality development. Hogan proposed that, compared with personality measures, which tend to reflect an individual's reputation (i.e., the way others see us), interest measures are a more direct expression of an individual's identity (Hogan & Roberts, 2000).

Vocational interests have been identified as one of the most central constructs in career development. Its guide career choices and play a crucial role in vocational and general identity development in adolescence. Vocational guidance and interest assessment has traditionally been used to identify suitable occupations which correspond to the people's interests, even for pupils with intellectual disability. Research and theory suggests that being employed in a vocation congruent to one's interests will lead to more job satisfaction (Lent, Brown, Nota & Soresi, 2003, Spokane, Meir, & Catalano, 2000).

Moreover, interests toward occupations are formed in early childhood, through the child's observation and limitation of the work roles of various family members. The vocational interest and self-concepts formed early in life are fundamental to educational and vocational planning, in view of the fact that the vast majority of development in children's work orientation is well underway before the end of the elementary years (Goldstein and Oldham, 1979). Children vocational interest develops as they learn about themselves and their abilities, as they conceptualize different work, and become more involved in activities that stimulate these concepts (Kruboltz, 1979 and Super, 1981).

Super (1990) suggested four ways in which to operationally define vocational interests;

- Expressed interests, which are the verbal expression of interest in an object, activity, task or occupation

- Manifest interests, which denotes active participation in an activity or occupation

19

- Inventoried interests, which denotes responses of like, dislikes, and in difference to verbal, objects and types of people.

- Tested interests, which refer to interests as measured by objective tests or manifested undercontrolled situations.

Holland, (1992) described six distinct vocational interests: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (RAISEC). Quite a number of researchers have dealt with inventories' interests, they discovered that these type of interests are likely to be helpful for people who are not certain about what type of work they should do (Hansen and Campell, 1985). In exploring vocational interest, Holland's (1997) theory of careers is a useful means of categorizing people and vocational interest that facilitate career development. Holland suggests there are six different personality types:

(a) realistic- individuals are active, stable, and enjoy hands-on or manual activities such as building, mechanics, machinery operation and athletics. They prefer to work with things rather than ideas and people;

(b) investigative- individuals are analytical, intellectual and observant, and enjoy research, mathematical or scientific activities;

(c) artistic- individuals are original, intuitive and imaginative, and enjoy creative activities such as composing or playing music, writing, drawing or painting, and acting in or directing stage productions;

(d) social individuals are humanistic, idealistic, and responsible, and concerned with the welfare of others and enjoy participating in group activities and helping, training, caring for, counseling or developing others;

(e) enterprising- individuals are energetic, ambitious, adventurous, sociable and self confident and enjoy activities that require them to persuade others, such as sales, and seek out leadership roles; and

(f) conventional-individuals are efficient, careful, conforming, organized, and conscientious, are comfortable working within an established chain of command and prefer carrying out well-defined instructions over assuming leadership roles.

Holland (1997) theorized that finding a match between personality and work environment will in the long term facilitate achievement and tenure in a vocation. Holland argued that comparing the characteristics between personality and environment can be helpful in determining educational choice, job choice, and in

understanding educational achievement, job stability and success, personal competence, and social behaviour. Despite the conceptual and terminological differences of these theories, interests are integral to one's identity and are an expression of an individual's attempts to adjust to the academic and work environment by finding opportunities that match their identity. An individual's interests are fundamental to the process of career development because individuals tend to seek environments in which they can express their interests (Holland, 1997).

Another view of interests, put forward by Hogan and Blake, 1999, is that vocational interests are, rather than outgrowths of personality development, a direct reflection of an individual's identity (i.e., the way we think of ourselves) that is best conceptualized in terms of a person's motives, goals, values, and aspirations Hogan and Roberts, 2000. Kanchier, 1990 noted that career interests can be stimulated through short-term job tryout experiences and job shadowing experiences that include documentation of preferences and performance. Information regarding the student's preferences of activities, work environments, emotional and monetary rewards, and supervision can help students with intellectual disability and parents to identify congruent short-term occupational choices and long-term career outcomes. Likewise, accurate information regarding performance may assist the student and transition planning team in identifying the training, work experiences, effort, and timeline that will be required to achieve the student's career preferences. Often, volunteer, leisure, and daily living activities offer opportunities to assess career interests. Frequently, observations of behaviour and emotional stability conducted across educational, social, and work settings are used to assess personality and interests.

Futhermore, vocational interest is primarily a developmental task that typically occurs during adolescence. Pupils with mild intellectual disability have difficulties negotiating this task because of limited access to educational and occupational opportunities (Young, 1994). Smith (2002) confimed that individuals who display little interest such as pupils with mild intellectual disability in acquiring information about different vocations, would have limited access to different vocational options; therefore, it is imperative that pupils with mild intellectual disability be exposed to learning activities that would enable them acquire vocational interest. Baker (2004) opined that one option of breaking the cycle of not developing vocational interest

2.1.5   Factors Influencing Vocational Interest

There are many factors that can help in shaping the vocational interest of persons with intellectual disability and especially pupils with mild intellectual disability, these variables may be external or internal depending on the individual. Some of these factors are family interaction, aptitude, schooling, social cultural factors and career/vocational development among others (Oyewumi, 2004). Decisions and behaviour about vocation can be influenced by these factors. Developing a vocational interest for youth with mild intellectual disability often means overcoming barriers or breaking stereotypes and matriculating in professional schools despite mainstream portrayal of youth with disabilities as minority. Morris (1997) results indicated that youth with mild intellectual disabilities are capable of academic and vocational success. This allows for some understanding of success that youth can obtain when supported by home, school and communities.

Family Interaction

Family influence is an important factor in preparing youth for employment. The family is the most common thread that runs throughout the child's lifespan, development of vocational interest begins in childhood as result of family interaction, the work routines of child and the child's observation of the work roles of various family members. Young people form many of their interest and attitudes about vocation and work as a result of interaction with the family. The social origin and family background of the individual especially of young adults affect their occupational destination and employment prospects. Family background found to be associated with vocational development include parents' socio-economic status, their educational level, biogenetic factors such as physical size, gender, ability and temperament (Lankard, 1996). Parents from different cultural background have different types of influence on the educational and occupational interest and decisions of their children.

According to Okorodudu (2006) the family is the first contact of the child in this world, and that interaction of the child with members of the family which include father, mother, siblings and other relations, does internalize certain values, ideals, norms, and develop a sense of career in the child. Thus the first course of career development starts with the child at the family level, and it is always the primary duty

of the family to develop and internalise a sense of career in the child. The National Career Development Association NCDA (2003) recognised this fact hence it advocates the home as where the positive societal contributions of all honest work can and should first be communicated to children. The National Career Development Association NCDA (2003) policy advocated the family as a workplace and all members of the family as workers, and that within the home and family structure, pre-school age children can first be exposed to true work experiences as family members try to do something that will be helpful to other members of the family. A solid foundation of career development at the family level is a good start-off in career development at all levels.

Families can assist in 'identifying' a job that is consistent with their family member's skills and interests, as well as the family's values and beliefs Parents can be effective educators in communicating to their children the value of work and by teaching behaviours that develop their children's employment potential. Parents can provide opportunities for enjoyable community activities that allow children especially children with disabilities to see people at work in different settings. Also, Parents can allow as much independence as possible, by assigning thier children responsibility of certain chores to help instill a positive work ethic, promoting appropriate behaviour at home and in social situations as well as assisting their children in practicing good grooming skills (Wehman, Sale and Parent 1992).

Parent Advocacy Coalition for Educational Rights, (2010) advised parent to provide opportunities for a variety of activities for their children, so that they can explore different areas of interests. Hobbies for example are an enjoyable way of learning different areas of interest and skills which can lead to job opportunities. Children or youth who like sports may eventually work in a sports store or at a camp. Parents can keep a list of their child's interests and the places where he or she seem most comfortable as well as note their child's skills and strengths and what motivates her or him to follow through on tasks. This enable parents learn more about their child, in addition to seeing their child's progress. They noted that young adults with disabilities and their families can benefit from going through a "person-centered planning" process which can helps a young adult to identify interests and set goals. It also helps family members and professionals define their contributions to helping a young person attain goals.

23

Lee (1996) theorized that the family is the institution that serves as the primary source of developing vocational interest for adolescents including those with disabilities. It is the family where children and adolescents receive nurturing and support. Values, norms, morals, and beliefs are transmitted from generation to generation during the familial vocational process. Parents also serve as major influences in the lives of their children (Otto, 1989). Of all the factors that influence career choice processes, family members particularly parents are the most influential determinant of career plans, occupational aspirations, and occupational expectations (Parham and Austin, 1994). Trusty (1996) theorized that high parental involvement, including an active interest in children's school subjects, homework, grades, activities, emotional well being, and future aspirations, predicted positive attitudes toward school and the future, better grades, and better career decision making skills.

Influence of Schooling

Schooling is one of the major source of learning related to occupational preparation, it exert a powerful influence on an individual's vocational development. The ability required to attain education is multifaceted, involving diverse factors such as geographical location, finances, family background social status and personal talent (Oyewumi, 2004). The ultimate goal of education is to prepare students to fully participate in the adult world by working and contributing to their community postively. Over the past decade or more, changes in the nation's labor market have increased the importance of students leaving school with the skills necessary to enter the workforce or obtain a postsecondary education in order to be able to better compete in the job market.This is even more pertinent for youth with intellectual disability in Nigeria who may not have opportunity to obtain postsecondary education.

Sowers, McLearn, and Owens, 2002 pointed out that school-based learning opportunity are particularly important for people with cognitive developmental disabilities who, unlike their peers without cognitive disabilities, may have limited opportunities to participate in social, work, volunteer, and community activities; and thus may have limited exposure to occupational role models. More so, career development activities within the educational setting may be the best opportunity for a student with mental retardation to explore the world of work before entering private or state-federal vocational rehabilitation service programmes for adults that focus

24

primarily on job placement and tenure. Individualized career development curricula can help document that students with severe cognitive impairments and their parents, educators, and advocates have information from which to make meaningful choices about the activities and outcomes of the Individualies Educational Plan (IEP).

Wadsworth and Cocco (2003) noted that people with mental retardation should be taught decision-making skills before beginning career development activities. The ability to indicate a preference and choose an outcome that is in one's self-interest is a skill that is a key component of career development and many other quality-of-life decisions (Whitney-Thomas, Shaw, Honey and Butterworth, 1998). Learning activities may include practice in making increasingly important decisions that affect lifestyle and satisfaction (American Academy of Pediatrics, 2000). Beginning in elementary school, students may be taught steps of decision making through classroom guidance lessons (Shevin and Klein, 1985). Guided decision-making exercises and planned opportunities for students to make important decisions and experience consequences in a safe environment are frequently used methods of teaching decision-making skills (Levinson, Peterson and Elston, 1994). Vocational exploration activities implemented at the elementary- and middle-school levels can prepare students with mental retardation to make career choices in young adulthood (Black and Langone, 1997).

Martin, Marshall and Maxson (1993) revealed that vocational education have a positive correlation with post-secondary job acquisition. The study identified four areas in instruction that should be targeted and integrated with classroom and vocational programmes; decision making, independent performance, self- evaluation, and self-adjustment. During decision-making class, students could identify needs, interests and skills, consider alternative future directions, and select goals. In independence performance class, students could follow through on action plans, and performance may be enhanced by teaching self-management strategies. Students with mild disabilities can self-evaluate by monitoring and recording performance outcomes, and compare results with goals and performance objectives. In classroom and work situations, students can perform self-evaluations by examining homework completion, grades, social interaction, productivity, accuracy, and earnings. Students with disabilities can learn to adjust by using self- evaluation skills to determine the

most desirable actions. They may change goals and tasks, and develop new self-management strategies for future goals based on self-evaluation.

It has been discovered that developing classroom instruction, as well as vocational programmes integrated with self-determination skills, can contribute to development of positive work ethics and social skills. Students are thus empowered to take responsibility for their decisions and to systematically monitor whether decisions are yielding desired outcomes. Through effective instruction students with mild disabilities can develop and maintain adequate cognitive decision-making skills, along with improved academic performance, social skills and work ethics, as result they have greater potential to achieve positive community and work outcomes, as well as social integration.

Classroom activities can provide the student with exposure to a wide variety of job related environments (e.g., working in a group vs. alone) and patterns (e.g., repetitive consistency vs. sporadic activity). Identifying preference, the identification of preferences can help the student define preferences that may translate to preferred occupational environments (e.g., working with others as a crew vs. working independently) and preferred occupational activities (e.g., assembly work vs. customer service) (McCrea and Miller, 1999). Wadswor and Cocco (2003) noted that vocational exploration activities implemented at the elementary- and middle-school levels can prepare students with mental retardation to make career choices in young adulthood. And that school counselors can help the Individualised Education Programme (IEP) team contextualize classroom activities such as choice making and social skill development as important components of vocational preparation. Middle-school classroom guidance lessons may focus on helping students develop knowledge of personal interests and abilities and foster an awareness of careers as a succession of related paid and unpaid work activities (Black and Langone1997, Reid and Bray, 1997).

School Counselor

School counselors and other educators share responsibility for the educational opportunities provided within the curricula to all students, including those with disabilities. The transition plans are designed to outline a set of coordinated activities to assist students in transitioning to postsecondary activities including employment or

education. School counselors, with their training in career counseling, life-span development, and assessment, can coordinate these activities especially for pupils with intellectual disability. (American School Counselor Association, 2003). School counselors are important in creating and advocating educational opportunities that have a positive long-term impact on the vocational interest and choices available to students with mental retardation (Milsom, 2002).

Campbell and Dahir (1997) in Sharing the Vision: The National Standards for School Counseling Programmes identified academic, personal/ social, and career knowledge and skill areas that all students should acquire. Included in these standards are career development activities designed to provide the foundation for the acquisition of skills, attitudes, and knowledge that enable students to make a successful transition from school to the world of work, and from job to job across the lifespan. Similarly, the National Career Development Association (NCDA, 1993) also emphasized school counselor involvement in the career development of all students.

School counselors serving elementary schools can collaborate with teachers to help students with mental retardation develop career interests and the ability to make choices among vocational activities. For example, instructional activities at all grade levels may be designed to provide students with exposure to a wide variety of job-related skills (e.g., following directions) and habits (e.g., timeliness). These activities may assist the student and others in the development and documentation of IEP goals by promoting awareness of the choices and interests that lead to future occupational success. In addition, classroom activities may be designed to provide the student with exposure to a wide variety of job-related environments (e.g., working in a group vs. alone) and patterns (repetitive consistency vs. sporadic activity). The identification of preferences can help the student define preferences that may translate to preferred occupational environments (working with others as a crew vs. working independently) and preferred occupational activities (assembly work vs. customer service) (McCrea & Miller, 1999, American School Counselor Association (ASCA), 2003).

School counselors have an important role in assisting the transition planning team to utilize techniques in designing and implementing career development activities that are effective with students with mental retardation. Consistent with ASCA's National Model (2003), a collaborative, developmental approach to

preparing students with mental retardation for the transition to employment permits school counselors to make use of school and community resources while still meeting the career development needs of all students. School counselors can promote career development activities for students with mental retardation in the elementary grade levels to promote career success for those students as adults.

School counselors can help students, parents, and Individualised Education Plan (IEP) teams developed career goals through providing accurate information about the world of work; matching students' interests and abilities to career opportunities and encouraging students to broaden their options as a precaution against future changes in the labour market (Schmidt, 1999; Szymanski and Hanley-Maxwell Hanley-Maxwell, 1996). These activities are consistent with trait and factor models of career development and occupation choice based on the work of Parsons (1909) (e.g., theory of work adjustment, Dawis, 1996).

Career Development

Career development is vital to a quality lifestyle for people with all forms of mental retardation. Career development is a dynamic process that requires individuals to engage in an ongoing assessment, analysis, and synthesis of information about the world of work and self. Career development activities that begin in the elementary school years promote career development, occupational readiness, and career resiliency among adolescents and adults who function within the moderate to severe range of mental retardation. Levinson, Peterson, and Elston (1994) noted that a major advantage of early career development activities for students with mental retardation is that early intervention provides ample time for vocational exploration and the acquisition of skills necessary for vocational success in a preferred occupation. In addition, career development activities may lead to increased job satisfaction and promote sustained patterns of employment among people diagnosed with mental retardation (Szymanski and Hanley-Maxwell, 1996; McCrea and Miller, 1999; Moran, McDermott and Butkus, 2001 Wadsworth and Cocco, 2003).

Sustaining vocational growth through successive employment opportunities, career development activities may assist students, parents, and educators in identifying and clarifying individual factors that are key components in occupational engagement. Although intelligence is associated with career maturity and the development of decision-making skills, factors other than skills, abilities, and

personality play a major role in career development and satisfaction for people with mental retardation. Factors such as interests, social opportunities, emotional rewards, and economic benefits influence career choices for most adolescents, including those with cognitive limitations. These same factors—interests, social preferences, and emotional rewards—influence the employment choices of adolescents and young adults diagnosed with mental retardation (Morris and Levinson, 1995, Enright, 1997 and Pierce et al, 2003). Career development activities within the educational setting may help student with mental retardation to explore the world of work before entering the labour market, private or state-federal vocational rehabilitation service programmes for adults that focus primarily on job placement and tenure.

Other indicators often suggest that children with intellectual see themselves as of low status. Katz (1988) pointed out that some young people also recognize that because of some distinguishing characteristic about them, their race, gender or some other attribute, they may be viewed as less capable, less intelligent, less virtuous and, as a result of this bias, they may be treated by some people as less than for their entire lives which may influence their vocational interest and choice (Montgomery, 1993). The unique challenge of youth with a disability, who are, have failed in school, and have no experience in the workforce is formidable and includes distorted vocational aspirations, serious work attitude problems, and ongoing job searches are many.

Workforce development training's has been identified as an important process for persons with mental retardation to go through because the primary focus is on the broader array of work skills- essential for success in finding and retaining employment, rather than on the skills required to complete a specific job. It involves training designed to assist youths to locate work using skills that may fit the individuals' vocational interest. This training may include employers providing critical information about local and regional labor market needs and worker preparation requirements, and designing treatment plans, academic pursuits, vocational training, and the labor market (Office of Juvenile Justice Department and Prevention, 2000).

Many workforce development programmes are structure to equip youth with the necessary academic, vocational and work readiness skills, as well as the life skills and development opportunities that will enable their successful transition to adulthood and careers. These programmes are increasingly reflecting the consensus emerging from both research and practice that preparing youths for careers and adult roles

requires more than the narrow range of training-related services commonly provided by youth employment and training programmes (Brown, DeJesus and Schiraldi, 2001), Their research also revealed that the new wave of workforce development training programmes are grounded in an assets based approach that stresses youths' strengths and works to empower youth, instead of focusing on their perceived deficits. Some of the key program elements that show the core principles of youth development include mentoring, community services, leadership development, positive peer-centered activities and long-term follow-up and supports.

Grubb, (1999) found workforce development's programme help persons disabilitie with general employability skills such as resume writing, dress, teamwork and specific skills, rather than with specific job skills required for success in a given occupation (i.e., workforce readiness training versus a high technology worker). Programmes are taught in a short time and focuses on a relatively job-specific occupational preparation. With this training the job seeker is provided customized services and reflects standard youth development principles rather than just a job. For example, workforce training involves providing a broad array of job skills such as hands-on tasks required for work (i.e., computer training, dress for success classes, etc.) assessment and generic work skills with minimal training in an industry. With African American male youth with disabilities placement in a facility the only viable training will be with soft skills training and post-secondary preparation. Their research found that many adjudicated youth do not have skills to enable them to find employment. Some will have better success in the labour market than others and will qualify for jobs where work experience and employer provided training will further income mobility. However, a significant proportion of recipients have skills, limiting their prospects to jobs with low earnings and few skill-building opportunities.

Lankard (1992) viewed workforce development training as the acquisition of soft work skills that enable a person to move from one job to another as demanded by the changing completive market. These soft skills are work-related competencies in interpersonal communications, teamwork, and the ability to evaluate job data and understand employer systems such as group projects. Lankard (1993) argued that workforce training can play a significant role in the ability of youth to overcome family, school, community, and cultural barriers to employment and to achieve economic independence of welfare services

2.1.6 Vocational Status of Persons with Intellectual Disability

Work is an essential part in the life of a person because it gives him status and binds him to the society. Acceptance of disabled persons at work can be viewed as society's acceptance of these persons without discrimination. Successful performance at work makes a disabled person self-confident. However, many people with disabilities are still unable to obtain work and are dependent on others. Just as normal adults work to earn their livelihood, persons with mental retardation also have the potential to work and earn a living if they are provided with the necessary training, placement and other supports. Work is an important medium for overcoming many of the obstacles encountered by these young people. A combination of work and school (i.e., an entry level job and participation in vocational development) can prove to be an effective bridge from school into the world of work (Wehman and Kregel, 1998). The William T. Grant Foundation Commission on Work, Family and Citizenship (1988) reported the inequities experienced by non-college bound youth, these youth often found low paying dead-end jobs. One approach to improve the employability of poor youth was to teach them trades.

At present, many of them are idle, work in sheltered workshops or work a few hours every week. Their earnings do not reflect their capabilities. To make employment a realistic option for people with mental retardation, appropriate jobs from the open market need to be identified. Simple jobs that require minimum supervision and low risk need to be selected for successful training and placement of individuals with mental retardation. If not by their intellectual ability, they need to be selected for the training based on their generic skills and aptitude. Vocational rehabilitation helps persons with mental retardation to hold on to a job. On most occasions mentally retarded children are sent to special schools, where they learn skills that help them to develop an aptitude for certain kinds of jobs later.

The labour force participation for individuals with disabilities illustrates an alarming employment problem. Only 30% of individuals age 16-64 with disabilities who seek employment are employed compared to a rate of 70% of individuals without disabilities (Harris, 1998, Sitlington and Frank, 1992). For students who persist to degree attainment (31% of students with disabilities compared to 51% of students without disabilities) most work full-time and have comparable salaries regardless of disability (U.S. Department of Education, 1999). Therefore, it is critical to understand barriers that inhibit and services that assist individuals with disabilities in gaining

access to and completing a postsecondary education and, ultimately, in securing employment.

Students without disabilities traditionally either enter postsecondary education or seek employment after high school graduation. These outcomes are not routinely experienced by youth with disabilities, however instead, they often face an uncertain future, one that may include unemployment or underemployment, social isolation, or dependence (Rusch, Hughes, Agran, Martin & Johnson, 2009). Despite efforts over the past two decades to improve post-high school outcomes among youth with disabilities, these youth continue to experience dismal outcomes, including high rates of unemployment, incarceration, and financial dependence, concurrent with low rates of enrolment in college or other postsecondary education alternatives (Rusch, 2008). Wehmeyer (1993) identified perceptual and psychological factors in career decision-making of adolescents with and without cognitive disabilities. Students with disabilities were found to have more significant perceptual and psychological barriers to career decision-making than do peers without disabilities, even when those peers have experienced failure. There were significant differences between students with learning disabilities or mental retardation and non-disabled peers.

Postsecondary education has been documented to have positive effects on people's employment. The Disability Statistics Centre (1997), U.S. Department of Labour (1999) and National Centre for Education Statistics (2000) confirmed that postsecondary education is associated with higher earnings for the general population. Research heve supports the finding that postsecondary education is associated with higher earnings and hours worked for people with disabilities in the Vocational Rehabilitation system. People receiving such services also achieved a higher incidence of competitive labour market closures. Students with intellectual disability were interviewed individually in one-hour sessions to record their present after-school jobs and interests, future vocational plans which they aspired to, perception of parent aspirations, and the realism of one's future plans.

The result showed that: no significant difference existed between the educable mentally retarded groups and the risk population relative to after-school employment; the educable mentally retarded group tended to aspire to lower-level jobs within the group, non-gainers tended to have more unrealistic aspirations and "wishful thinking" than high scorers and gainers; and in understanding vocational choices, both groups

indicated familiarity with job requirements but could not specify how they knew. Significantly more retarded students chose jobs identical to those in which a family member was engaged. They concluded that there were few differences between the two groups in regard to vocational development. However, the special class group differed markedly in ability and motivational factors and learning potential status differentiated between the more or less able within the narrowly defined IQ range.

2.2 Theoretical Framework

2.2.1 Explicit Instructional Strategy

Explicit instruction is a research-based practice that has been available to classroom teachers since the late 1960s. It is a systematic instructional approach that includes set of delivery and design procedures derived from effective schools research merged with behaviour analysis. There are two essential components of explicit instruction: visible delivery features and the less observable, it is an instruction with a high level of teacher and student interactions, with instructional design principles and assumptions that make up the content and strategies to be taught (Hall 2000). The design and visible delivery feature of explicit strategy allows for high level of teacher and student interaction. It is an instructional designed principle that involves frequent students response, appropriate pacing of instruction, adequate time to process instruction, monitoring students' responses and adequate feedback on the part of the teacher. Adams and Engelmann (1996) submitted that teaching using explicit instruction is most beneficial for low performing students and students with special needs. Substantial research has been conducted on components and the complete instructional package of explicit strategy. Like with many teaching practices there are varying degrees of adaptation and acceptance the effective teaching practice, most if not all of the component of explicit instruction as essential for positive outcomes. (Rosenshine, 1997, Ellis, Deshler, Schumaker, & Clark, 1991).

Explicit instruction according to Instructional Strategy Online, (2009) involves directing pupil attention towards specific learning in a highly structured environment. It's focused on producing specific learning outcomes. Topics and contents are broken down into small parts and taught in a logical order, individually and directed by the teacher. It involves explanation, demonstration and practice. Pupils and students are provided with guidance and structured frameworks. Explicit teaching is useful for introducing new topics and specific skills. It provides guided instruction in the basic

understanding of required skills, which pupils can then build on through practice, collaboration, repetition, hands on activities and developmental play. Explicit instruction is a teacher-centred instructional approach that is most effective for teaching basic or isolated skills. It can be a scripted programme that is very systematic with a step-by-step format requiring student mastery at each step. It is generally fast-paced instruction and often used with a small group of students. Students respond to instruction and receive immediate feedback. Explicit instruction also includes continuous modelling by teachers, followed by more limited teacher involvement and then fading teacher involvement as students begin to master the material (Maccini and Gagnon, 2000, Kroesbergen and Van Luit, 2003).

David (2000) viewed explicit instruction is an important technique in special education because it provides explicit frameworks for students with disabilities to use, when they write or study or engage in group activities. The explicit frameworks offer a shared language that teachers and students can use as they engage in cognitive activities and as they work with one another. While the ultimate rationale is that by immersion in a learning environment that is rich in clear, explicit discussions of relationships, and full of a systematic use of relevant examples, students increasingly make linkage on their own. In explicit instruction, teachers follow a sequence of events, generally stating the objective, reviewing skills necessary for new information, presenting new information, questioning students, providing group instruction and independent practice, assessing performance, and giving more practice (Swanson, 2001). Swanson identified 12 criteria associated with direct instruction and whenever any four of these indicators are present, explicit instruction is occurring.

- Breaking down a task into small steps
- Administering probes
- Administering feedback repeatedly
- Providing a pictorial or diagram presentation
- Allowing independent practice and individually paced instruction
- Breaking the instruction
- Breaking the instruction down into simpler phases
- Instructing in a small group
- Teacher Modelling a skill
- Providing set materials at a rapid pace

34

- Providing individual child instruction
- Teacher asking questions
- Teacher presenting the new (novel) materials

Principles of Explicit Instruction; involves providing students with an adequate range of examples to exemplify a concept or problem-solving strategy; Providing models of proficient performance, including step by-step strategies (at times) or broad, generic questions and guidelines that focus attention and prompt deep processing-, Providing experiences where students explain how and why they make decisions; Providing frequent feedback on quality of performance and support so that students persist in activities, and Providing adequate practice and activities that are interesting and engaging. The need for explicit instruction for many students with disabilities according to U.S. Department of Education, 1997 was derived from the understanding that often students with learning disabilities and other problems related to academic performance: (1) have a difficult time organizing information on their own (especially abstract information), (2) bring limited background knowledge to many academic activities (especially those involving abstractions), and (3) need a good deal of feedback and practice to retain abstract information.

Freebody Ludwig and Gunn (1995) posited that a large body of research showed that effective classroom interaction leads to success in learning when it is explicit and pupil centred. Opportunities for learning are enhanced when classroom instruction is clearly focused directly on learning needs of the students. Effective and explicit classroom talk emerged to be a pivotal feature of quality pedagogy as it enables students to know what is of primary relevance and what is of secondary relevance at a time. Edward-Grooves (2002) noted that explicit instruction is a powerful way of letting the pupils in on the big secret of what is going on, resulting in a more genuinely pupil-centreed pedagogy that moves towards catering more equitable for the diversity of learners present in everyday classroom. Accordingly, explicit teaching is not just merely giving students clear directions or even stating the learning goals at the beginning of a lesson from assessment through planning, implementation and review. Opportunities for learning are enhanced when classroom talk is clearly focused on learning about aspects of literacy and directly responds to the learning needs of the students. Effective and explicit classroom talk emerges to be a pivotal feature of quality pedagogy as it 'enables' students to know what is of

primary relevance and what is secondary for this lesson at this time, and they will know what is useful and relevant to take to new learning situations.

The explicit instruction framework is flexible and holds wide applicability for teachers across grade levels (elementary, middle, and secondary), settings (whole group, small group, general education, special education), and content areas. It provides a contemporary middle ground for teachers who may avoid traditional direct instruction approaches, but who acknowledge that many students - particularly in today's inclusive classrooms - need instruction that is explicit, meaningful, and effective. Readers will be able to gain expertise by mastering small chunks of the explicit instruction framework at a time - mirroring the process of teaching young students how to master new skills and strategies (Goeke, 2009). Explicit teaching directly and intentionally prepares pupils for learning, informs them of the learning path and enables them to develop meta-cognitive strategies for knowing that learning has taken place. It is an approach that clearly, explicates and maintains the "what", the "how" and the "why" of any given lesson. It:

- makes assessment and learning purposes and goals clear by presenting students with 'upfront' information about the new learning in terms of the primary topic and purpose for the learning or assessment task
- engages student thinking for the purpose of learning about specific aspects of literacy and involves a clear progressive lesson structure that allows introduction-elaboration-practice-summary/review. It requires the teacher to work within a structured framework for the focused teaching of all aspects of literacy that connects what is *new* to what is *known*
- assesses student learning throughout the lesson by monitoring the talk. It responds to student contributions in a way that makes the connections to specific learning a priority
- responds to students' contributions in lessons in a meaningful way that provides scope for them to reformulate ideas, skills and knowledge and articulate their learning to make real connections to their learning at all stages of the lesson
- builds on, and asks students to build on to each others' responses

- engages in focused instructional talk, and does not allow conversations about 'everyday familiar topics' or talk orienting to 'behaviour management' to cut into and override the main learning agenda
- enables the subjects and topic to be presented systematically and strategically
- allows time at the end of the lesson for students to share their learning with talk (or brief written notes) that summarise, review or reflect on the main learning points of the lesson.

It is in line with this that Hall (2009) explained that explicit instruction consists of essential design components and delivery components.

**Standard Instructional Design Components
Essential to All Explicit Instructional Episodes**
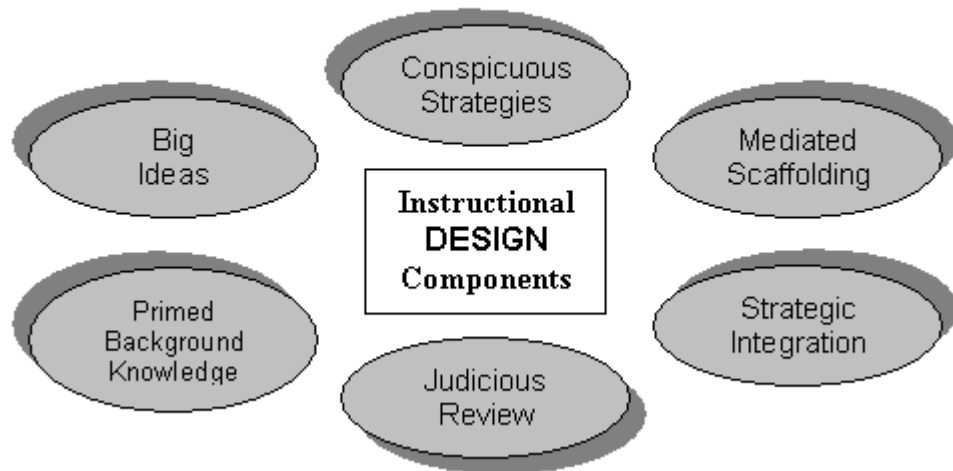
Essential Instructional Delivery Components

**Standard Instructional Delivery Components
Essential to All Explicit Instructional Episodes**

Appropriate Pacing

Frequent Student Responses

Instructional DELIVERY Components

Adequate Processing Time

Provide Feedback

Monitor Responses
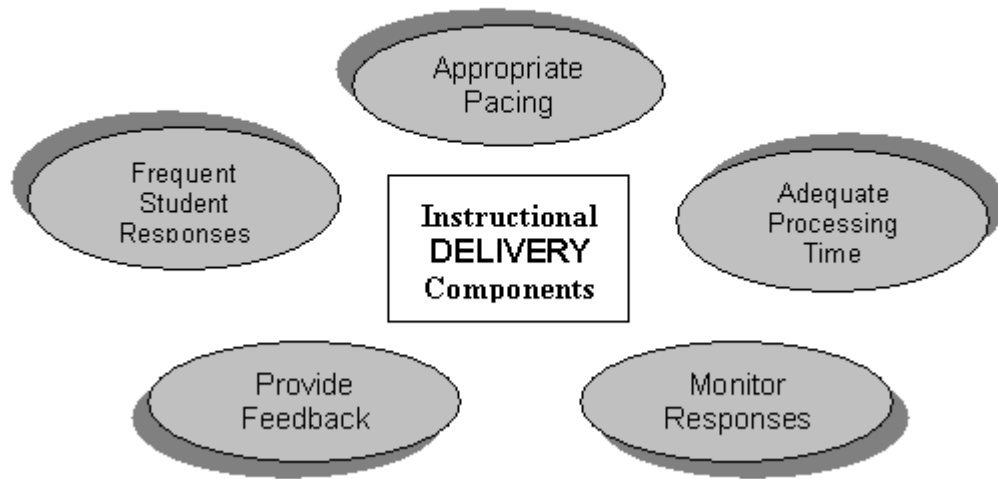
2.2.2   Visual Instructional Strategy

Audiovisual education emerged as a discipline in the 1920s, when film technology was developing rapidly and as a result of this visual instruction movement arose, which encouraged the use of visual materials to make abstract ideas more concrete to students especially children who are visual learners. Visual instruction is regard as one of effective learning strategies in different learning environments (Dwyer, 2007) since human beings are visually oriented (Norman, 2004), Visuals serve a variety of roles in education, it helps to facilitate pupil learning as well as providing a rich environment for learning. It can increase student interest and motivation to learn. Visuals give meaning to words, it provide a more concrete reference thus helping to prevent misconception. Visual aids are visual representations which support presentations in the form of text, cartoons, graphs, illustrations, photographs. These can be OHP transparencies, handouts, flipcharts, posters, objects etc. They help to break up the monotony, providing a visual stimulant to reinforce what the learners are hearing. Visual representation techniques also constitute one of the major instructional formats available to teachers, ranging from carefully prepared multi-colour diagrams of objects or processes to sketches hastily drawn on paper. There is quite strong informal evidence available from both teachers and students that these devices assist learning, given the long history use of these devices in teaching it is surprising that there has been relatively little systematic study

of their nature and effects (The International Encyclopaedia of Education, 1995 & Microsoft Encarta 2009).

According to The International Encyclopaedia of Education, (1995) verbal instruction firmly ensconced in the oral traditions of education in both Western and Eastern cultures, however it suffers from several limitation especially for learners with special needs and learners with mental retardation in particular: comprehension of oral instruction depends on the linguistic and conceptual sophistication of the listener, and these skills may vary widely within any given audience. When there is such a mismatch between speaker and listener misunderstanding result; secondly, some ideas communicated in formal instruction naturally lend themselves to being stored and retrieved in visual form. There is evidence that learner remember essential features whether visual or verbal by constructing visual mental schemata. Since learners vary in their innate ability to do this, visual representation are helpful as aids to visualization.

In a classroom setting, using visuals such as pictures in text, audiovisual technology (V.C.D, Television) and computer technology as educational tools, aid pupils in processing information. Visual aid can also help the children understand the information simply by keeping thier attention focused on the subject at hand. Furthermore, it reinforces the lesson for children who learn primarily visually. Technologies can be used as a communicator for pupils to reason about information and to make things clearer cognitively. In addition to this cognitive clearing and making content information more apparent is the use of graphic organisers. The use of these can act as a facilitator of the learning experience for the learners and for the teacher an organized approach for content instruction. Graphic organisers are teaching and learning tools that aid in organizing ideas and concepts into a visual format. It is useful for pupils and teachers because it concretises abstract information that can otherwise be overwhelming for students.

A finding arising from visual imagery research opined that visual aids assist learners who are poor visualizers thus "levelling the playing field" for audience with varying aptitudes. Auditory and visual representations can greatly enhance the verisimilitude of classroom experiences, increasing the likelihood of transfer of learning. Visual instruction helps to achieve educational objectives in schools it is

also a valuable means of introducing new subject matter, it make it possible to review a series of lessons or experience in a concrete and connected way (Anna, 2009). While, Dye (2000), described visual instruction as visual – spatial arrangements of information containing words or statements connected graphically. It can help pupils see meaningful hierarchical and comparative relationships. Visual displays can be effective for teaching abstract concepts to pupils with disabilities.

Persons with intellectual disability benefit and do better in environments where visual aides such as charts, pictures, and graphs are used as much as possible. Visual components are useful for helping students to understand what is expected of them. Using charts to map students' progress is very effective, for instance. Charts can also be used as a means of providing positive reinforcement for appropriate, on-task behavior (Tammi Reynolds and Dombeck, 2006). One of the early and still popular modern-day theoretical constructs about media and learning was the "Cone of Experience" first proposed by Hoban (1937) and elaborated upon by Dale (1954). The cone suggested that media vary with regard to the concreteness of the learning experience they provide, and that there is a general correlation between the amount of a learner's prior experience with a concept and the abstractness of media that may be effectively employed in teaching it. A weakness of the Cone of Experience is that the items in Dale's Cone are a mixture of activities and what constitute media and how they relate to learning are difficult to infer.

In response to the challenge to present a more coherent theoretical framework for studying the effect of media on learning, Kozma (2001) extended the cognitive perspective proposed by Salomon (1996), building on insight provided by Levie and Dickie (1973). This perspective defines a medium according to its capability to employ certain symbol systems focusing on the attributes exhibited in any given mediated presentation. Focusing on the attributes present in a media presentation is fundamental to the cognitive perspective because those symbolic representations relate directly to the ways in which learners mentally represent ideas, process information, and construct their own schemata. Kozma's "constructivist" perspective views learning as a process of creating meaning and one that can be shared between a learner and a physical artefact.

2.3   Theoretical Review

Vocational development is a dynamic, stage-based, evolving process that integrates all the aspects of an individual's life into an understanding of the individual's interaction with his or her vocation. Three developmental characteristics of vocational development appeared to be agreed upon and viable: a) vocational development is a life-long and on-going process, b) vocational development manifest as a series of stages, and c) vocational development is an integral part of general development (Hovenic 1981). Research has been conducted on career development. Parsons (1909) theorized that a choice of a vocation depended on (a) an accurate knowledge of yourself, (b) thorough knowledge of job specifications, and (c) the ability to make a proper match between the two. In choosing of a vocation there are three broad factors: (a) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitation; (b) a thorough knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; and (c) true reasoning on the relations of these two groups of acts. Super (1990) theorized that while career patterns change as people mature, they are determined dominantly by socioeconomic factors, mental and physical abilities, personal characteristics and the opportunities to which people are exposed.

Super (1956, 1980 and 1990; Super, Savickas and Super, 1996) theorized that career development influences vocational interests which in turn leads to a career choice, that fits the person's self defined preferences. He theorized that people define the kind of person they are, in part, by their vocational interests. Super's approach, rather than assuming that all individuals in the same age range are in the same career stage, and that many factors (e.g., physical, social, and psychological) determine a person's career stage. It includes five stages; Growth, Exploration, Establishment, Maintenance, and Decline in which individuals must master stage specific tasks that build upon each other to prepare them for their career choice.

The Growth stage takes place from ages of 4 to 14 years old. During this stage, fantasy play and curiosity help children explore interest and abilities. The children develop an understanding of the meaning of work and begin to form a self-concept of who they are and how they differ from others. Individuals begin to develop basic skills that will equip them for work in the broader community. Individuals

41

making temporary decisions about careers and field of study characterize the Exploration stage, during the age of 14 to 25 years old. Throughout this stage, individuals go through trial experiences in their career of interest or areas of interest so they can decide whether they want to pursue that career or move on to something else that is a better fit for them. The adolescents increase their understanding of themselves and their abilities and begin to explore the world of work in order to make choices that will eventually result in implementation of a vocational choice.

The Establishment stage (age 25 to 45 years old) is a time when individuals become more stable in careers, and they either are successful and advance or become frustrated. The individuals, after preparation and trial, make a commitment to an occupation area and are concerned with establishing a secure place and finding niches for themselves. The Maintenance stage (age 45 to 65 years old) involves stagnation, revision, or innovation. The individuals are concerned to maintained status and position in one's selected occupation.

Finally, the Decline stage (65 years old and older) involves retirement or the beginning of a new specialized career or hobby (Super et. al., 1996). The individual is required to deal with issues of retirement and seek other non-vocational sources of self fulfillment. There is a consensus in the literature that vocational interests begin to develop as early as four years of age (Schulenberg, Vondracek and Crouter 1984 Seligman, Weinstock and Heflin, 1991; Super, Savickas and Super, 1996).

Adolescents from low-income backgrounds may have their development hindered by a lack of access to occupational information, role models, and the perceived lack of employment opportunities, all of which influence career choice. In exploring vocational interest, Holland's (1997) theory of careers is a useful means of categorizing or influencing people and careers to facilitate vocational interest. Holland suggests there are six different personality types: (a) realistic- individuals are active, stable, and enjoy hands-on or manual activities such as building, mechanics, machinery operation and athletics. They prefer to work with things rather than ideas and people; (b) investigative- individuals are analytical, intellectual and observant, and enjoy research, mathematical or scientific activities; (c) artistic- individuals are original, intuitive and imaginative, and enjoy creative activities such as composing or playing music, writing, drawing or painting, and acting in or directing stage productions; (d) socialindividuals are humanistic, idealistic, and responsible, and concerned with the welfare of others and enjoy participating in group activities and

42

helping, training, caring for, counseling or developing others; (e) enterprising-individuals are energetic, ambitious, adventurous, sociable and self confident and enjoy activities that require them to persuade others, such as sales, and seek out leadership roles; and (f) conventional-individuals are efficient, careful, conforming, organized, and conscientious, are comfortable working within an established chain of command and prefer carrying out well-defined instructions over assuming leadership roles. Holland, (1997) theorized that finding a match between personality and work environment will, in the long term, facilitate achievement and tenure in a vocation. He argued that comparing the characteristics between personality and environment can be helpful in determining educational choice, job choice, and in understanding educational achievement, job stability and success, personal competence, and social behavior (Holland, 1997).

Krumboltz and Worthington, (1996) and Holland, (1997) theorized that several factors influence the development of vocational interest, including peers, genetic predispositions, parents, socio-economic class, culture, physical environment, and reinforcement histories. Likewise, there are a number of factors that influence a work environment, including physical environment, job requirements, and social environment. People seek out environments that allow them to express their vocational interest and accept challenges that are best met by people with their specific characteristics (Holland, 1997). Individuals are able to match the sub-types (combinations of the three highest rated descriptors) with sub-types of variety of vocational interests (Holland, 1985; Holland & Gottfredson, 1992). Therefore, Holland's theory of career development and vocational interest has heuristic value that makes it a valuable tool in workforce training (Whiston, 1989, Osipow, 1990, Holland and Gottfredson, 1992) and this study.

The literature theorized that people are most satisfied, successful, and have longer tenure when they work in an environment that allows them to express their attitudes, values, and beliefs, and when they are able to use their personality and skills to solve work related problems effectively. Moreover, it suggests that youth who are not in a work environment that is a good fit with their vocational interest are more likely to be unhappy, less successful, and unstable (Holland. 1997).

Vocational Interest

Vocational Interest is an important element of vocational development. Through the years, it has been difficult to determine the manner in which individuals

select various careers. However, career development theory helps create an understanding of the variety of ways adjudicated youth with disabilities actualize their vocational interests and make career decisions. Furthermore, it serves as a basic way to describe and discuss the development of vocational interests. Current theories of vocational interest and career choice provide framework for future theories in vocational development. Anne Roe, John Holland, and Donald Super are among the most noted contributors of vocational development theory. Their works are cited as foundations for new theories in vocational development. Even though none of their theories incorporate race or disability a major component, researchers credit them with being cognizant of race as a factor in vocational development (Parham and Austin, 1994). In addition, their studies help shape the theoretical base of this study.

Lent, Brown, and Hackett (1994), theories offer some explanations for how the stages proposed by Super (1996) might be navigated. These theories suggest that the choices youth consider for career opportunities are function of their vocational interests (Hansen, 1990) and their perceived self-efficacy in related activities (Betz and Hackett, 1981; Hackett, 1985). Vocational interests develop, in part, through associative and instrumental learning experiences (Mitchell & Krumboltz, 1996). Therefore, the environments to which youth with disabilities are exposed provide limited opportunities for them to experience different activities that might become career areas of interest. They are differentially reinforced for pursuing and achieving different levels of success in these career developing activities. As a result, youth with disabilities may repeatedly engage in activities that they perceive as positive or that are likely to be rewarded (Mitchell and Krumboltz, 1996), and will develop skills, explore career choices, and training expectations of what will result from the perception of workforce development training that an individual is skilled at soft skills, and the expectation that participating in it will bring positive outcomes (Lent, Larkin and Brown, 1996). O'Neil, Ohlde, Toffelson, and Pigott (1980) theory of vocational influence supported the notion that the family, school, and community could serve as influences in the development of vocational interests youth with disabilities. Similarly, Roe's, Holland's and Super's theories of vocational development and the O'Neil et al. (1980) theorizes vocational development decision-making is not based on an African American vocational interest perspective.

The O' Neil et al. (1980) theorized that vocational influence is based on previous theories of vocational development, similar to Holland (1973), Roe (1957)

44

and Super (1957), and prior to the O'Neil et al. (1980), O'Neil, Meeker and Borger (1978) developed a theory that includes 6 major factors and 22 sub-factors that affect an individual's vocational interest. This vocational influence theory postulates that individual, societal, familial, socioeconomic, situational, and psychosocial-emotional factors affect vocational influence processes.

O'Neil et al. (1978) identify the major factors of the theory as follows:

- Familial Factors include the family's influence regarding vocational choices. It includes an individual childhood experiences as well as mother's and father's role models.

- Individual Factors involve those things individuals expect of themselves, as well as their abilities, interests, attitudes, and need to achieve.

- Societal Factors include the values, attitudes, and practices society places on various career choices. Educational experiences, peer group influences, and mass media depiction makes up this factor.

- Socioeconomic Factors relate to society's economic condition, as well as social, racial and ethnic group membership. The factors include sex and age discrimination, adjudication, workforce preparation and training.

- Situational Factors involves predictable situations that shape vocational interests. It includes the elements of chance and of taking the course of least resistance. Psychological-Emotional Factors are defined as problems that can restrict, limit, or influence vocational interests. It involves the fear of failure, the fear of success, the lack of confidence, the lack of assertiveness, and role conflict (O'Neil et al., 1978).

All the subjective factors listed are linked with aspects of the O'Neil et al. (1980) theory of career decision-making. Objective factors such as socioeconomic status, IQ, and parent's occupational status have less of an influence on youth with disabilities career development than subjective factors (Fisher and Griggs, 1995, Kerchoff and Campbell, 1977, Schulenberg et al., 1984).

Fisher and Griggs (1995) theorizes that career development profiles of the dominant culture tend to be influenced by objective factors (i.e., SES, intelligence quotient, family occupational status), that is different from the career development of minorities who are influenced more by subjective indicators (i.e., personal efficacy, educational aspirations, perception of opportunity structure, and the

influence and support of significant others). Other indicators often suggest that children with intellectual disability see themselves as of low status.

2.3.1 Career Development Theories and Disabilities

Early vocational development research (1950s and 1960s) ignored people with racial, linguistic, ethnic, gender, and physical or intellectual differences. Career development research and instrumentation were developed using white, middle-class males without disabilities. While most of the theory and research in vocational development applied to the behaviour of normally-developing groups, less is known about whether the same principles and variables operated with atypical groups. Educators must be aware of the limitations of these theories when applied to people with disabilities. Existing theories have dubious utility for both describing and predicting the vocational behaviour of disabled population (Brown, 1990).

Little objective information exists regarding the career development of individuals with disabilities, which clearly is likely to be different than that of non-disabled individuals. As compared with their non-disabled peers, individuals with disabilities are less likely to have a variety of formative opportunities for work, salient role models; and vocationally oriented peer, family, and societal expectations (Brown, 1990, Szymanski, Hershenson, Ettinger, & Enright, 1996). In essence, educators cannot assume that knowledge derived about the career development of non-disabled individuals can be generalized to a population with disabilities.

Szymanski and Hanley-Maxwell (1996) noted that the presence of a developmental disability has the potential to influence career development. The combination of the onset of disability during the formative years and the developmental nature of career development (Vondracek, Lerner, & Schulenberg, 1986; Super, 1990) can lead to a variety of impediments. However, negative effects on career development are, by no means, a necessary consequence of disability.

Literature revealed there was a failure to actively apply career development concepts to the disabled. Reasons for this failure include the mistaken assumptions that (a) persons with disabilities were subjected to similar developmental forces and experiences as non-disabled persons, and thus needed no special consideration or theory; (b) the life experiences of the individual or the nature of the disability made

the disabled population so different from the rest of society that theories of development could not and should not be applied to disabled groups; (c) theories were too recent or theoretical to be applied to vocational development issues of the various disabled populations; (d) career development was not important for the disabled; (e) the disability itself overrides the individual's other characteristics in determining career behaviour; (f) the career development of the disabled were arrested; (g) the career development of the disabled were unsystematic and primarily influenced by chance; and (h) career options for the disabled were limited. This prevalence of negative attitudes and stereotypes by professionals, community members, and employers attributed to the existence of these assumptions can hindered the vocational development of the disabled.

Theories have typically focused on one of three related constructs: occupational choice, career development, and work. Occupational choice explained an individual's choice of a specific occupation. Career development, a construct that developed at a later time, referred to the process of one's lifelong sequence of occupationally relevant choices and behaviours (Brown and Brooks, 1996). Work adjustment addressed adjustment to the work process itself and independent of the occupation in which it was performed (Szymanski, Turner, & Hershenson, 1992).

Hershenson (1981) provided a comprehensive treatment of the vocational development of disabled persons in his theory of work adjustment. Work adjustment revolved around three basic domains: work personality, work competencies, and "crystallized" work goals. He posited that while these domains were primarily sequential in nature they interacted as a system, development or delay in one domain affected the other domains. The strength of Hershenson's model in application to disabled populations was that it provided a mechanism for discussing an individual's background and earlier experiences as they related to work adjustment.

Szymanski, (1999) identified two theories that were particularly applicable to the school-to-work transition of youth with disabilities. It stated that both Krumboltz's social learning theory and Hershenson's theory of work adjustment were applicable to youth with disabilities because they focused on the effect of past learning and experiences on current learning and interests. In the recent past, students with mild disabilities were still treated in a prescriptive deficit model of instruction, opportunities for these students to learn typical tasks and social behaviours were often

denied due to prescriptive curricula and segregated classes. These theories were both developmental and ecological in nature and offered an appropriate framework from which to conceptualize transition strategies. Super's life-span, life-space theory was also applicable to this population in that it offered a means of considering the whole person and his or her multiple life roles in transition planning and implementation. This life span emphasis supported the idea that transition planning constituted a part of all education. Super's construct of career maturity helped educators assess youths' readiness to make various career decisions.

Hagner and Salomone (1989) believed that the currently accepted career decision models assumed a level of intellectual sophistication and vocational maturity that people with developmental disabilities often don't possess. Szymanski, et al., (1996) suggested that the career development and career patterns of individuals with disabilities are likely to be substantially different than those followed by non-disabled individuals. They asserted that research was needed to explore the developmental career patterns of individuals with disabilities. The vocational rehabilitation of individuals with disabilities involved a special application of vocational development theory, not necessarily a special theory. Perhaps what is called for is not a separate theory of vocational development for disabled persons, but rather a re-examination of current theories in light of the observation that these theories may not in fact fit the data of exceptional groups. Attempts to "make the data fit the theory" are of limited value. The assumption that the vocational needs of persons with disabilities cannot be accommodated within the existing theoretical framework perpetuates the myths and discrimination toward individuals with disabilities (Harrington, 2000).

Hershenson (1981) provided a comprehensive treatment of the vocational development of disabled persons in his theory of work adjustment. Work adjustment revolved around three basic domains: work personality, work competencies, and "crystallized" work goals. He posited that while these domains were primarily sequential in nature, they interacted as a system. Development or delay in one domain affected the other domains. The strength of Hershenson's model in application to disabled populations was that it provided a mechanism for discussing an individual's background and earlier experiences as they related to work adjustment. However, the model does not specifically address disability.

48

There continues to be concern about the applicability of existing theories and models to individuals with disabilities and the lack of a universally agreed upon model of vocational development. If youth with disabilities are provided with relatively few active mastery experiences, they will be deprived of valuable information for developing competence (Lent & Hackett, 1987). A historical and longitudinal understanding of the factors important for individuals with disabilities would help educators make better judgments about career and training plans, and increase awareness regarding some of the vocational development needs that may require more specialized intervention during the career development process. To apply these theories to persons with disabilities requires that educators understand the theories, the impact of disability, and the interaction between disability and career development. Educators are cautioned to consider the age of onset of the disability, the severity of the disability, and possible deficits in early learning experiences in relation to career development behaviours.

2.3.2 Career Development and Decision Making Theories
The basic premise underlying this approach is that decision making skills are major component of vocational guidance. The approach focuses on how individual gather, process and uses information for decision making. The major exponents of this theory are Gunzberg, Hilton, Hershension and Roth and Katz. Ginzberg (1951) discovered the following three generalized approaches adopted by counselors, social scientists and others when explaining the process of vocational choice:

- Accident Theory
- Impulse Theory
- Talent-matching Theory

Accident Theory

The theory is based on the fact that individual chose their occupation 'accidentally'. And that if a cross section of the working population were asked why they chose their job they would probably reply in terms which, explicitly or implicitly, seem to support the accident hypothesis. The accident theory suggests that a person's occupational choice is determined by an unplanned exposure to a powerful stimulus. Undoubtedly unpredictable external influences do have some effect on occupational choice, but the accident hypothesis grossly overstates the significance of

such occurrence. The accident hypothesis highlights some of the determinants of choice such as external factors, but it is incomplete in so far as it ignores all other factors. The individual must take account of external factors, but the way he responds to them will largely depend on how he perceives them. The 'accident', or exposure to a stimulus, may provide an opportunity but other factors will help determine the response to that opportunity.

Impulse Theory

The basic assumption of this approach is that the internal elements help condition the response to external factors. This approach has been stressed by psychoanalysts who are convinced of the central and dominating importance of unconscious motivations in everyday life. It has been noted that every occupation is composed of people with widely differing emotional make-ups and any person can find expression for any unconscious motivations in a large variety of occupations. Occupational choice therefore involves more than simply finding an outlet for basic impulses.

Talent- matching Theory

The focus of this theory is that individual abilities, assets, interests and aspirations should match the requirements of occupations the person want to do. This approach appears to have been the cornerstone underlying the vocational guidance movement. Talent matching approach is also subject to growing criticism because matching a person's capacities against the aptitudes required by some occupation provides no guarantee that the individual will be happy and satisfied in that occupation, in other words contentment does not inevitably follow competence.

Comprehensive theory

The theory is based upon the premise that occupational choice is a developmental process which typically takes place over a period of years; the process is largely irreversible; it ends in a compromise between interests, capacities, values and the opportunities which are available. There are three periods of occupational choice: the early period of fantasy choice, governed largely by interests, later to be modified in the light of knowledge about capacities and values; and finally the period of realistic choice in which exploratory, crystallization and specification phases succeed each other.

Super Theory

Super (1957) asserts that vocational development is an ongoing, generally irreversible process, which began early in life and continued until the end of life. He conceptualized vocational behavior as being divided into a number of specific, complex tasks corresponding to certain life stages, constituting an overall developmental pattern. Super's early work addressed the role of the family, and the importance of family relationship factors in facilitating career exploration. The role of close family connections throughout the life-span, as facilitators of career exploration, parental and family relationships emerged as primary ingredients in the development of effective exploratory attitudes and behaviours. More recently, theorists have integrated Super's work into a broader developmental and contextual approach to career development (Young & Friesen 1992; Vondracek & Schulenberg, 1986).

Super (1980) proposed conceptualizing career development as taking place as the individual chose and shaped a variety of work and nonwork related roles in four environments: the home, the community, the school, and the workplace. This attention to environmental impact on career development represented a major expansion of Super's original career development theory (Vondracek, et al., 1986). Super's lifespan developmental framework offered a more holistic approach to explaining vocational development, recognizing life roles and the interactions between these roles. Super's theory of vocational development can be summarized in form of ten propositions.

- People differ in abilities, interest and personalities. The theory of individual differences is one of the cornerstones of modern educational and vocational psychology. No two people are exactly alike; they each have different characteristic pattern of traits and abilities.

- They are qualified, by virtue of these characteristics for many occupations. It is a well-established fact that each individual has the potential for success and satisfaction in a number of occupations. Research has also shown that physically and mentally handicapped people can satisfactorily perform many occupations.

- Different occupations requires characteristic pattern of abilities, interests and personality traits, with tolerances wide enough to allow variety of people to

51

perform satisfactorily in each occupation. And thatt people prefer, enter and succeed most consistently in those occupations for which they have appropriate patterns of traits.

- Vocational preferences and competencies change with time and experience, thereby making choice and adjustment a continuous process.

- The process of occupational choice and adjustment may be summed up in a series of life-stages characterised as those of growth, exploration maintenance and decline, and these stages may in turn be subdivided into: the fantasy, tentative and realistic phases of the exploratory stage, and the trial and stable phases of the establishment stage.

- The nature of the career patterns is determined by the individual's parental socio-economic level, mental ability, and personality characteristics, and by the opportunities to which the person is exposed. Occupational choice and subsequent vocational development is greatly influenced by the experience a child undergoes. The individual is a product of his environment, his inherent aptitudes, and neural and endocrinal make-up. The extent to which this inherent potential is developed and explored is largely determined by his family.

- Development is guided and facilitated by the maturation of abilities, interests testing and self-concept.

- The process of compromise between individual and social factors, between self-concept and reality, is one of role playing whether the role is played in fantasy, in the counselling interviews, or in real life activities such as school classes, clubs, part-time work, and entry jobs.

- Work satisfactions and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values. Super argues that satisfaction in an occupation depends upon the extent to which the work and the way of life which goes with it enables the individual to play the kind of role he wants to play.

There are some basic assumptions about vocational development:

- Individual development is continuous, and there are distinct life stages.

52

- People in each stage of life have certain common traits.

- Most people in a specific culture pass through similar developmental periods.

- Society places certain demands on individuals and they are similar for all people in that society.

- Developmental crises occur when people become aware of the need to change current behavior and learn new coping skills.

- As individuals learn new skills, they become more mature.

- Preparations for overcoming a developmental crisis are made in the stage prior to next new crisis.

- The crisis must be met successfully before the individual can pass to another developmental stage.

- Learning required tasks gives the individual approval from society and helps a person pass through other crises successfully.

2.4   Empirical Review

2.4.1 Explicit Instructional Strategy

Explicit instruction have been researched extensively across classrooms by grade (preschool through adult) and by ability (special and general education settings) since the mid-1960s. General education classrooms, special school, with diverse students, including students at-risk for academic failure, economically disadvantaged students, and students with disabilities. Additionally, applications of explicit instruction incorporate the range of school content areas including reading (decoding and comprehension), mathematics, language arts, history/social studies, science, health, art and music education. It has been thought that teaching using explicit instruction is most beneficial for low performing students and students in special education. However, the results from extensive research repeatedly indicate that all students benefit from well-designed and explicitly taught skills.

A meta-analysis conducted by Adams (1996) yielded over 350 publications (articles, books, chapters, convention presentations, ERIC documents, thesis, dissertations and unpublished documents) on various forms of studies conducted on Explicit Instruction. Criterion for inclusion limited the analysis to 37 research publications that met four groupings: (a) regular education, (b) special education, (c) the National Follow-Through project, and (d) follow-up studies. Some example

- The mean effect size per study using explicit instruction is more than .75 (effects of .75 and above in education are extraordinary). Accordingly, this confirms that overall effect of explicit instructional practices is substantial. Thirty-two of the 34 studies analyzed had statistically significant positive effect sizes.

- Substantial effect sizes is further evidence that explicit instruction is an effective instructional practice for all students. The authors conclude that although Direct Instruction is often described as a programme for students in special education, the effect sizes calculated in this meta-analysis are nearly the same thus indicating the teaching strategy is effective for students in general education as well as those identified with disabilities.

- National Follow-Through Project: Students receiving explicit instruction in reading, mathematics, language and spelling achieved well in these basic skills, as well as reading comprehension, problem solving, and math concepts.

- National Follow-Through Project: Student scores were above other treatment conditions in the affective domain as well as the academic. This suggests that competence in school-related skills, enhances self-esteem. Critics of the model have predicted that the emphasis on tightly controlled instruction might discourage children from freely expressing themselves and thus inhibit the development of self-esteem, which is not.

- Review of the research on beginning reading using explicit instruction strategies reported that students considered disadvantaged and students with diverse needs, like other students benefit most from early and explicit teaching of word recognition skills, including phonics.

Also, according to researchers and the results of several meta-analyses Ellis, (1993); Karp and Voltz, (2000); and Swanson, (2001) concluded that using a combination of explicit instruction and strategy instruction has a greater positive effect than either method alone. Teachers should consider ways to use both explicit instruction and strategy instruction in each lesson to gain the maximum benefit from each approach. Teaching basic skills to students through explicit instruction and then teaching them strategies to store and retrieve the information will ensure a successful

educational experience for all students. For students with disabilities and students who are at risk, these approaches are crucial for the retention of new skills.

However, explicit instruction is critically about clarity, responding to the learner, implementing focused lessons, reflection, and review as well as knowing the learner.

2.4.2   Visual Instructional Strategy

The power of a visual representation of an idea or process is generally accepted in both in education and the wider society. It has been discovered that pupils with intellectual disability do better in environments where visual aides such as charts, pictures, and graphs are used as much as possible. Visual components are useful for helping students to understand what is expected of them. Using charts to map students' progress is very effective, for instance. Charts can also be used as a means of providing positive reinforcement for appropriate, on-task behaviour. Meta-analysis studies on media research have shown that students gain significant learning benefits when learning from audio-visual or computer media, as opposed to conventional instruction strategy (Clark, 2001).

Nailos, Whitman and Maxwell, (1994) evaluated the effects of three instructional procedures (verbal, visual, and verbal plus visual) with persons with intellectual disability Performance was examined on a visual task which incorporated stimuli of varying degrees of familiarity to the subjects. The results indicated that the use of the combined verbal-visual instruction procedure was more effective than the other two training programs when task stimuli were familiar to the subjects. When task stimuli were unfamiliar, instructional procedures which had a visual component were found to be superior to a procedure which employed only the use of verbal component. The subjects' visual ability was most strongly associated with performance outcome when visual instruction was employed when unfamiliar task stimuli were sorted.

Davies and Stock, (1994) used picture task sequences and audio instructions to successfully teach individuals with mental retardation the complex task of operating an automated teller machine to perform various independent living and work tasks. Visual Assistant multimedia training programme was designed to run on the Windows

55

CE platform which allows a special needs user to view step-by-step pictures along with audio instructions on the computer at their pace. Audio instructions and digital pictures created and customize the system to provide self-directed training on a wide variety of tasks. Tasks are task-analyzed according to the specific training and support needs of each individual user. Individual pictures and audio instructions are then integrated into the task for each discreet step in the task. Use of the Visual Assistant prototype resulted in improved task accuracy and increased independence for ten adults working on two different vocational tasks as compared to performance on the same tasks following instruction but without the Visual Assistant.

Mayer and Gallian (1990) carried out several studies on the effects of illustration on learning and argued that their potential remains to be fully exploited. In their discussion of different types of illustration Jones, Pierce, and Hunter (1989) proposed that an effective graphical representation allows the development of "a holistic understanding that words alone cannot convey, because the graphical form allows representation of parts and whole in a way that is not available in sequential structure of text.

Sowers, Verdi, Bourbeau and Sheehan (2007) examined individuals with mental retardation use of picture cues and self-monitoring to initiate a series of tasks of varying type and order. Four severely to moderately retarded high school students participating in a vocational training programme were trained to use a picture-cue system. The system consisted of photographs of vocational tasks that were inserted in the assigned order in a photo-album sheet; self-management was accomplished by marking off each photo after its corresponding task was completed. Students were assigned seven tasks from a pool of thirteen (13) each day. Results indicated that the students quickly learned to use the picture-cue system to change tasks throughout their workday without trainer prompts and that performance was maintained as trainer feedback and presence were decreased. At the end of the study, two students who were exposed to novel photographs were able to initiate independently after only minimal training, suggesting that the use of the picture-cue system had become a generalized skill.

Stock, Davies, Secor and Wehmeyer (2003) carried out a study using computer technology to enhance self-determination of persons with intellectual disability. The results revealed that a self-directed multimedia software approach can

be used effectively to assess the vocational preferences and interests of individuals with intellectual disabilities. The integrated multimedia process offered by the *WorkSight* system used in the study resulted in an informative and cost efficient way to determine vocational interests for participants. Charlop and Milstein (1989) used videotaped conversation as a model to increase the fluency and generalization of conversational speech (via role play) for students with autism. Haring, Kennedy, Adams, and Pitts-Conway (1987) used videotapes of peers shopping across stores to facilitate the generalization of shopping skills for students with autism. Cuvo and Klatt (1992) found that secondary students with developmental delays generalized community-referenced sight words to community settings when they were taught in the classroom with videotapes. Poche,

Yoder, and Miltenberger (1988) used videotapes showing multiple exemplars of potential abductors and role modeling of children saying "no" and running away to train self-protection skills in young children. Finally, Branham, Collins, Schuster, and Kleinert (1999) used video modeling and prompting to teach chained tasks to adolescents with moderate cognitive disabilities that generalized across settings. Because teacher time for conducting direct instruction is limited, video instruction is promising as an alternate means to present students with effective systematic instruction. The research using video technology with response prompts to teach students with disabilities is limited to instruction with adolescents (Branham et al., 1999; Lasater & Brady, 1995) with only one study including a self-help skill (Lasater & Brady, 1995). During this investigation, an instructional package combining video modeling and video prompting with a CTD procedure was implemented with elementary students with mental disabilities to teach the following chained self-help skills: (a) cleaning sunglasses, (b) putting on a wrist watch, and (c) zipping a jacket. These skills were selected because (a) the parents and educators involved believed that these skills would lead to more independent functioning, (b) peers without disabilities of the same chronological age could already perform these skills without assistance, and (c) each of the participants had at least one of the skills as an objective on their individualized education programs (IEPs). Given the effectiveness of video modeling and prompting and of the CTD procedure coupled with the limited number of research investigations combining these procedures with students with mental disabilities, this study attempted to answer.

Dwyer, 2007. Reviewing existing literature regarding visual instruction indicates that past studies tended to use multimedia programmes, such as Flash software, to design animated visual instruction and ignored the benefits of static visual instruction. Dwyer discovered that static and animated visual instruction can with equal effectiveness significantly support student learning. In other words, the effect of static and animated visual instruction on student learning is the same.

Students with an intellectual disability learn better visually so teaching using charts, pictures and graphs are recommended. Teachers should give students immediate feedback in order for the students to make connections between their answers, behaviors or questions and the teacher's responses. Delays in providing feedback may cause the student to lose the connection between cause and effect in the student's mind and the point will be lost.

2.4.3 Socio-Economic Status

Socioeconomic status (SES) is the measure of the influence that the social environment has on individuals, families, communities, and schools. In many ways SES is related to the concept of social class. Both have financial stability as a foundation for classification. Both are important to a child's optimal development and an adult's satisfaction with life. However, the concept of social class is considered to be continuous throughout one's lifetime and from one generation to the next. The socioeconomic status classifications are established in an effort to find the means of identifying and changing inequalities. In addition, social class has economic differences as a primary influence. The concept of socioeconomic status considers other influences such as the chance for social or economic advancement, influence on policy, availability of resources, and prestige of the primary occupation. According to American Psychological Association, (2011) Socio-economic status is commonly conceptualized as the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation. Examinations of socioeconomictus status often reveal inequities in access to resources, plus issues related to privilege, power and control.

The definitions of socio-economic status emphasize that, as a construct, it is conditional; it is imposed on people; it is used for comparisons; it is based on

economics, opportunity, and means of influence. Santrock (2004) defined it as the grouping of people with similar occupational, educational, and economic characteristics. Woolfolk (2007) called socio-economic status the relative standing in society based on income, power, background and prestige. The factors that are usually considered in establishing socio-economic status SES are income, occupation, education, neighbourhood, and political power. For each of these five factors, the consideration of how fixed each one is also contributes to soci-economic status. Individuals' socio-economic status is usually determined by the socio-economic status of their family.

The socio-economic status of the family is calculated based on the measure of the factors noted above. How well can the family members meet their financial responsibilities? What prestige is associated with the occupation of the head of the household? What level of education have the parents achieved? What is the safety and upkeep of the neighborhood in which the family lives? What hope do the family members reasonably have to influence the government and community policies that affect Oyefara, (2005) noted that the term "socio-economic factor" is a loose, barely definable term used to denote the social and economic variables that influence an individual, group, community, society or nation. Inherent in the usage of this term are variables such as economic and work activities, religion and world views, pattern of social interaction, social organization including social stratification, gender roles, norms and social sanctions. The concept of socio-economic status represents one of the socio stratification which arises out of recognition that in all societies, people are ranked in a number of levels on social class and is common to all.

The literature in regard to the inter-relationship of education and socio-economic status published since 2000 suggests that this factor continues to play a significant part in the kinds of outcomes from schooling experienced by young people. This literature continues to support the conclusion that the influence of socio-economic status is complex, and intersects with a range of other factors including gender, culture and ethnicity. There are as yet no simple explanations as to how these factors combine, or how they impact in different geographic locations. There are some indications that support the view that the concentration of disadvantage rather than disadvantage *per se* is the significant driver of educational under-performance.

Socio-economic status is a key determinant of student's educational achievement. Shuell (1996) discovered that the socio-economic background of a person has a link on his/her educational and career development. The negative effects of low socio-economic can interfere with a child's cognitive development. Research indicated that children from low socio-economic households and communities develop academic skills more slowly compared to children from higher SES groups (Morgan, Farkas, Hillemeier, & Maczuga, 2009). Initial academic skills are correlated with the home environment, where low literacy environments and chronic stress negatively affect a child's preacademic skills. The school systems in low-SES communities are often underresourced, negatively affecting students' academic progress (Aikens & Barbarin, 2008). Also, findings on the relationship between SES and intellectual/ academic competence has accumulated. McCall (1981) presented evidence that the association between SES and cognitive performance begins in infancy. Numerous studies have documented that poverty and low parental education are associated with lower levels of school achievement and IQ later in childhood (Pianta et al. 1990, Alexander et al. 1993; Duncan et al. 1994; Zill et al. 1995).

The results over a nearly 25 year period are stark: throughout the 1975- 1998 period, students whose parents were employed in professional and managerial occupations had the highest average scores and students whose parents were production workers or labourers had the lowest Teese (2003) in his analysis of the performance of students in Victoria. He found clear and consistent trends for children from lower socio-economic status families to have lower VCE scores (Year 12 results) and Year 5 benchmarking test results. United Kingdom Government's Social Exclusion Unit (2004), a child born into the bottom social class is still more likely to leave school with no qualifications, to live in relative poverty and to die younger than their peers born into the professional classes.

Researchers have argued that low-SES children lack access to cognitively stimulating materials and experiences, which not only limits their cognitive growth but reduces their chances of benefiting from school. Data from the National Longitudinal Survey of Youth and the National Household Education Survey (Corwyn & Bradley 2000; Bradley et al. 2001) indicated that children from poor families have less access to a wide variety of different recreational and learning materials from infancy through adolescence. They are less likely to go on trips, visit a library or museum, attend a theatrical performance, or be given lessons directed at

enhancing their skills. Access to such material and cultural resources mediates the relation between SES (or family income) and children's intellectual and academic achievement from infancy through adolescence (Brooks-Gunn et al. 1995, Bradley&Corwyn 2001, Guo & Harris 2000). Students from high income families tend to assume they would go to university, while students from lower income families tend to think in terms of skilled jobs. One of the problems of students from low socio-economic status was their inability to aspire higher. There is no doubt that the socio-economic status of the student has a great influence on the value or worth they place on education. Students from low-SES schools entered high school 3.2 grade levels behind students from higher SES schools. In addition, students from the low-SES groups learned less over 4 years than children from higher SES groups, graduating 4.3 grade levels behind those of higher SES groups (Palardy, 2008). In 2007, the high school dropout rate among persons 16- 24 years old was highest in low-income families (16.7%) as compared to high-income families (3.2%) (National Center for Education Statistics, 2008).

Economic inequality is on the rise, leaving low income families struggling in society. Low income families focus on meeting immediate needs and do not accumulate wealth that could be passed on to future generations, thus increasing inequality. Families with higher and expendable income can accumulate wealth and focus on meeting immediate needs while being able to consume and enjoy luxuries and weather crises. These enable them to have more success in preparing their young children for school because they typically have access to a wide range of resources to promote and support young children's development. They are able to provide their young children with high quality child care in form of books and toys to encourage them in various learning activities at home. This will in turn have good impact on their children's social competence. Also such parents have easy access to information regarding their children's health as well as social, emotional and cognitive development all of which will help them prepare their young children to develop social competence (Shapiro, 2004).

Hoff (2003) noted that family socioeconomic status (SES) is a powerful predictor of many aspects of child development. Families with low socio-economic status often lack the financial, social and educational supports that characterize families with high socio-economic status. They suffer from inadequate or limited access to community resources that promote and support children's development. Zill,

Collins, West and Hauskan (1995) stated that low maternal education and minority-language status are most consistently associated with fewer signs of emerging literacy and greater number of difficulties in preschoolers. Having inadequate resources and limited access to available resources can negatively affect families' decisions regarding their young children's development and learning. As a result, children from families with low socio-economic status are at greater risk of entering kindergarten unprepared than their peers from families with medium or high socio-economic status.

Research by the RAND Corporation (Lara-Cinisomo, Pebley, Vaiana and Maggio 2004) found that the most important factors associated with the educational achievement of children are not race, ethnicity, or immigrant status. Instead, the most critical factors appear to be socioeconomic ones. These factors include parental education levels, neighbourhood poverty, parental occupational status, and family income. These conclusions were reached by studying two separate samples of US students: a local, early childhood sample and a national, high school sample.

Studies have repeatedly found that socio-economic status affects student's outcomes. Students who have a low socio-economic status earn lower test scores and are more likely to drop out of school. It is believed that low socio-economic status negatively affects academic achievement because low socio-economic status prevents access to vital resources and create additional stress at home (McNeal, 2001, Jeynes, 2002 & Eamon 2005).

2.4.4 Gender Issue

Gender is a distinction of biological and/or physiological characteristics typically associated with either males or females of a species, in general studies have shown that gender plays an important role in career choices. Gender is generally refers to the meaning that societies and individuals associate with being male or female. It refers to the socially acceptable norms, roles and beliefs for men and women (Akingbade, 2008) Gender is the socio-cultural dimension of being female or male. Few aspects of our existence are more central to our identity and socials than genders (Denmark and Palud, 1998) Male and female career choices are normally different because of the difference in their self-concepts. Girls tended to opt for a very narrow range of stereotypically feminine occupations. There is a gender-role stereotyping in expressing vocational interest among gender whereby male preferred

realistic and investigative occupations and female on the other hand preferred social type of occupations (Betz and Hackett, 1981).

The various biological differences in human make-up particularly between male and female human beings in most cases have led to the suspicion that one sex may have a "learning edge" over the other sex. Some people believe that because men are regarded as the dominant and even superior sex, they intrinsically have better brains and learn much better than women (Mkpughe, 1998). This view tends to be in line with that of Rosenthal and Rubin (1982) together with that of Okoye (2009) that differences between male and female students in intellectual performance in schools have been demonstrated on a wide range of variables. Finding showed that three cognitive gender differences were well established. Girls have greater verbal, ability than boys, and boys have better visual spatial ability than girls. Other research studies show that observed differences had not always favoured one gender.

The issue of how sex differences influence outcomes in the development of interest is central to both the educational and the vocational traditions of interest research, despite their different emphases on the contextual and dispositional aspects of interest. In educational psychology, researchers are concerned about how these sex differences in interests develop and how they impact individuals particularly girls' and women's educational choices, career decisions, and achievement.

AlMiskry, Bakar and Mohamed (2009) conducted a study to determine the gender difference and career interest among undergraduates, its implication for career choices. The finding showed that students' career interest patterns vary across gender. The study showed that male students constituted the larger group in the realistic career interest patterns (70%) compared to females (30%). Tomlinson and Evans (1991) also found that male college students scored significantly higher than female college students on Strong-Campbell Interest Inventory, and that more males than female students preferred realistic and investigative occupations. People in advance societies generally hold particularly well-defined stereo-types about men and women which prevail regardless of age, economic status, social and educational background. Men are more apt to be viewed as having traits involving competence, such as independence, objectivity and competitiveness. In contrast, women tend to be seen as having traits involving warmth and expressiveness. The perceived differences between men and women in favour of men

63

Bem (1981) and Betz (1994) tried to reason out the factors relevant to the development of gender differences in vocational interest. They suggested that the development of gender difference in vocational interests as well as vocational choices is a result of multitudes of factors, some which are internally related, and some are environmentally related. In a study by Betz (1994), it was found that occupational stereotype is one of the factors affecting the vocational interest of genders. On this basis, people believed that occupations are designed to be appropriate for one gender and not for the other gender.

Dregar and Jungbluth (1994) presented researches in gender inequality in Education in the Netherlands. The scholars confirmed the existence of gender inequality even in the primary school set up. It does appear therefore that gender inequality could be found in almost all cultures. Nigerian educational system also treats boys and girls differently, for example, in elementary school; boys are four times more likely to receive attention from classroom teacher than girls. Boys receive significantly more praise, criticism and remedial help than girls do. They are also more likely to be praised for the intelligence of their work, while girls are more apt to be commended for their neatness. Even in primary schools, male pupils receive more eye contact from their teachers than female pupils. Boys are called upon more frequently in class and are more apt to receive extra help from their teachers (Sadker & Sadker, 1994). Bentz (1993) described vocational programs and transition planning services needed and received by students with disabilities. Three samples of participation were the focus of this study, and results indicated that 35% of teachers believed students needed both specialized and regular vocational instruction. The majority (89%) of students with mild mental retardation were identified as needing some type of vocational instruction. Approximately 40% of students with mild retardation, emotional disabilities, and learning disabilities were identified as needing both specialized and regular vocational instruction, with parents and teachers rating the majority of students with disabilities as performing insufficiently. According to parents, even the best performing students with disabilities failed to perform as well as the comparison group of students without disabilities. Both parents and the teachers of students with disabilities rated male students as more competent than female students. Areas of perceived student transition need were vocational training (68%), post-secondary education (57%). and remedial academics (33%). AlMiskry, Bakar and Mohamed, (2009) carried out a study to determine the career interests of

university students. Two hundred and thirty-eight undergraduates were involved in the study consisting of 101 male and 137 female students attending three public universities in Malaysia. The study showed that 12.6% students was classified as having realistic career interest, 24.8% of the students was classified as having investigative career interest, 8.8% of the students has artistic career interest, 26.9% of the students has social career interest, 21% of the students has enterprising career interest, and 5.9% of the students has conventional career interest. It was discovered that there was a significant different of realistic career interest pattern between male and female students.

2.4.5   Vocational Status of Persons with Intellectual Disability

Most youth recognize that they are expected to assume roles that result in meaningful contributions to their community once they become adults. Furthermore, most youth without disabilities understand that the goals they set for themselves should be based on their preferences, strengths, wishes, and interests and that the options they select and the choices they make should provide a means to attain personal satisfaction and achievement. These expectations should not be critically different for youth with disabilities (Rusch, Hughes, Agran, Martin & Johnson, 2009).

Employment is a major dilemma facing people with intellectual disability, studies have shown that as many as 80 percent of adults with mental retardation are either unemployed, or underemployed (Kiernan & Stark, 1986), and their wages are far below the poverty line (McDonnell, Wilcox, & Hardman, 1991). Follow-up studies with people with severe disabilities report: community-based employment rates vary between 0 percent and 20 percent; 52 percent to 77 percent work in sheltered workshops, or day activity programme; and the average earning is $150 (or less) per month with less than one-fourth receiving fringe benefits (Policy Research Brief, 1996). Other studies indicated that only 7 to 23 percent of adults with mental retardation are employed full-time. While an additional small percentage (9-20%) are employed part-time, most are either unemployed or not in the labor force. The National Consumer Survey of adults with mental retardation reported 81 percent not working (Temple University Developmental Disabilities Center/UAP, 1990).

A postsecondary education is one of the most significant ways in which an individual can increase their employability (U.S. Department of Education, 1999;

U.S. Department of Labour, 1999). Educational attainment closely relates to lifetime earnings and economic self-sufficiency, two of the hallmarks of successful employment (Disability Rights Advocates, 1997; HEATH, 1996). Seventy-eight percent of high school graduates enter some type of postsecondary education compared to 37% of individuals with disabilities (In comparison to this study, The National Organization on Disabilities 1998 Harris Survey states that 50% of adults with disabilities have completed some college, including 2-year vocational programs (Harris, 1995).

Wehman et al (1993) conducted conducted a study in Virginia, based on the data analysis for one hundred and seventeen (117) young adults with moderate, severe and profound mental retardation, found that the unemployment rate was 79 percent, and that only eight of those who were working earned more than $100 per month. Finally, based on results from the National Consumer Survey study, it was found that seven thousand (7,000) people with developmental disabilities who are not working are 'less' integrated into society than those who are working. Further, the people who are most integrated are those in supported employment and regular jobs, than those in sheltered employment, volunteer unpaid work, or not working.

Bucher, Brolin, and Kunce (1987) investigated the adult employment status of one hundred and fifty-three (153) students who were educable mentally retarded and eighty-one (81) students who, were severely learning disabled and who, as grade school students, all received a competency-based, life-centred career education curriculum developed by Brolin (1985). Completion of the career education curriculum in grade school was significantly related to the future employment levels of all students with mental retardation and of females with severe learning disabilities. Heal (1999) conducted a survey of seven hundred and thirteen (713) young adults who had been students in special education programmes and found that career development activities such as work opportunities, the intensity of vocational preparation, and the percentage of time spent in career education courses were predictors of increased employment, self-esteem, independence, and job security.

Villemarette (1975) carried out a career education project in a career education project in a rehabilitation centre to ascertain whether such principles as the development of self-awareness, planning and problem-solving skills could be enhanced in a multidisabled population. Sixty-six (66) subjects divided into

experimental and control groups. The two-week career orientation activity treatment consisted of twenty-five hours of written and reading materials, a field trip, filmstrips, a video-tape presentation, discussion on career development and the world of work Adjustment Training and its implications for the handicapped and career planning. The results of the study showed that: Experimental subjects achieved significantly higher CMI Goal Selection scores (.05 level), The activity had no apparent influence on career attitude, self-appraisal and problem-solving as measured by CMI.

Folman and Budoff (1971) studied the differences in vocational studied the differences in vocational development between special and regular class students from low-income backgrounds. They used forty-six (46) educable mentally retarded and thirty-three (33) non retarded students. All the educable mentally retarded students were from the same junior high while the non retarded were fom three low-level seventh-grade classes and were classified a "risk population" having failed at least two subjects and were on average, one year younger than the educable mentally retarded group. All the students were administered Koh's Black Design Test to ascertain learning potential. Each was assigned a learning potential status based on three performance patterns: (1) high scorers who performed well on initial testing; (2) gainers who performed poorly on the pre-test but improved markedly following instructions and (3) nongainers who performed poorly on both the pre-test and the post-test. Siegel and Gaylord-Ross (1991) reported the employment of persons with disabilities as one of the most compelling social problems in the society. Studies have shown that as many as 80 percent of adults with mental retardation are either unemployed or underemployed and their wages are far below the poverty line. Follow-up studies with people with severe disabilities report: community-based employment rates vary between 0 percent and 20 percent; 52 percent to 77 percent work in sheltered workshops, or day activity programme; and the average earning is $150 (or less) per month with less than one-fourth receiving fringe benefits (Kiernan & Stark, 1986; McDonnell, Wilcox, & Hardman, 1991).

The U.S. Commission on Civil Rights (1983) found unemployment among persons with disabilities to be between 50% and 75% as compared to only 7% among persons who were non disabled. A 1987 Harris Telephone Survey, conducted with 1,000 disabled persons representing a cross-section of the population, had the following results: 67% of all Americans with disabilities between the ages of 16 and

64 were not working; working individuals with a disability were 75% more likely to be employed part-time; and 67% of those not working indicated that they wanted to work (Rusch & Phelps, 1987). The Office of Special Education Programs reported in 1988 that individuals with disabilities continued to lag behind in almost all areas of economic activity under every indicator as compared to individuals without disabilities (Fairweather and Shaver, 1991).

Recent data reported by the National Organization on Disability (NOD) indicated that only 29% of respondents from a national sample of 1,000 individuals with disabilities age 18-6 were working full or part-time compared to 79% for persons without disabilities (National Organization on Disabilities, 1998). Additionally, 72% of the individuals with disabilities who were unemployed indicated that they would rather work. Employment statistics on work and disability for persons age 21 to 64 reported by the U. S. Census Bureau (1999) indicated that persons with severe disability had a 26% employment rate compared to a 77% employment rate for persons with non-severe disability and 82% employment rate for non-disabled Americans. Employment also varied based on the type and severity of the disability. Persons with hearing difficulty had an employment rate of 64%, sight related disability 44%, mental disability 41%, and 26% for those wheelchair bound or with serious physical disability (U.S. Census Bureau, 1999).

Orisini (1974) examined the maturity level of educable mentally retarded students relative to selecting their life's work. Career maturity of forty (40) educable mentally retarded students in a special day class was compared to fifty (50) educable mentally retarded students in regular classes. The ages ranged from twelve to seventeen years old. Each student was administered the Career Maturity Inventory-Attitude Scale. The results showed that the educable mentally retarded lack proper career maturity to make decisions on the types of occupations that will provide them with job satisfaction. The results also indicated that the career maturity scores of regular class students were significantly related to mental age and IQ but not to grade or chronological age.

Nigeria Context

In Nigerian the employment status of persons with special needs is pathetic because the so called 'normal' youths are facing myriad challenges, many of those

who dropped out of secondary school (and those who managed to pass through) lack the skills to compete in the rather weak economy and tight labour market. One of the weak links in the Nigerian system of human capital investment is the connection between school and work. In contrast to their peers abroad, Nigerian secondary school students frequently do not have good job skills because while in school they have not been exposed to those skills, experiences and activities that will develop good work skills. Inspite of the normalization principle of managing persons with intellectual disability which has led to the emphasis on their rights to quality and normal life, most persons with intellectual disability in Nigeria are handicapped by dependence on others and lack of economic empowerment. Obtaining and holding a job is a major life challenge and goal.

It has been noted that the neglect of vocational education is rubbing the nation of the contribution their graduate would make on the economy; the graduates could establish small-scale businesses and employ the youths that have nothing to do. It is, therefore, socially injurious to neglect this important area or look down on it. The society needs competent auto mechanics and truck drivers, carpenters, plumbers, electricians, electronics and computers, database, Web and network technicians, bookkeepers, and clerks, medical technicians and nursing assistants (and other personnel in this category) to function well. These are some of the skills in short supply in Nigeria. The current preoccupation with university education in Nigeria is counterproductive, as not everyone needs a university education. It also reduces economic opportunities for students who are more oriented toward work than academe.

As result of the aforementioned the national unemployment rate has continued to ratchet upward unabated. As the *vanguard* of December 23, 2004 noted it has moved from 4.3% in 1985 to 5.3% in 1986, to 7.0% in 1987 and jumped to 60% in 1997. And the weak economy has exacerbated the unemployment condition. The report shows that in 2003 primary school accounted for 14.7% unemployment, secondary school 53.6%, and tertiary schools constituted 12.4%. This seems to have worsened the poverty level. The same report put the nation's poverty level at 70%; and more than 91 million Nigerians live on less than one dollar per day. However, the *ThisDay* of Dec 20, 2004 put the number of poor Nigerians at "75.14M."   The world needs educated and skilled workers, vocational and technical education could fill the

void. Sadly, Nigeria is lagging behind in preparing her workforce for the challenges of the changing global economy.

Therefore, there is need for high school students in Nigeria to gain knowledge of workplace culture and values along with general education competency. This would provide them a variety of skills to manage small-scale businesses and enable them to easily gain employment more easily after graduation. The current social and economic changes in the world have altered the conditions and structure of employment and employers now require their employees to posses some technical skills. Those who could not go beyond elementary school (high school/university graduates who lack job skills) are facing enormous challenges because they are unqualified to secure a decent job (*Vanguard* of *Nov 25, 2004).* Reducing the burden of unemployment and poverty on the youths is of upmost importance now, the government should improve funding in this critical sector and increase access to technical and vocational education for the ever-growing youths in the country.

The case of persons with special need and especially persons with intellectual disability is even more pathetic, there is no provision on ground that can help them to find their place in the society. The occupational aspect of this group's education has been inadequate and sporadic. Over the year's persons with disabilities continued to have extraordinarily high unemployment rates, their employment status has been described as one of the most compelling social problems.

2.5   Summary of the Literature Review

The following have been derived from review of related literature;

Intellectual Disability/mental retardation has often been viewed as a complex phenomenon, fundamental beliefs about it changes regularly over time. More recently, a substantial change occurred again in the field of mental retardation/intellectual disability, when the world's oldest organization on mental retardation/intellectual disability officially changed its name from American Association on Mental Retardation (AAMR) to the American Association on Intellectual and Developmental Disabilities (AAIDD). The change is as a result of setting new standard in disability terminology, introducing a more socially-acceptable way to address people with intellectual disabilities, moving away from a term that has become offensive to people with disabilities.

The shift from institutionalization to normalization principle of managing persons with intellectual disability has led to emphasis on their rights to a normal and good quality of life. Normal and good quality of life has been linked with education and employment. The ultimate goal of educating persons with intellectual disability is to help them achieve this normal and good quality of life. Unfortunately for most persons with intellectual disability dependency on others and lack of economic empowerment are areas of serious handicap they face. They attain adulthood and sometimes reach old age, without any prospect of achieving independence or self-sufficiency.

Research findings indicated that individuals with disabilities are often unable to generalize traditional academics to the world of employment and adult living. Many expert in the field strongly believed that the curricula for students with disabilities must transcend the traditional academic approach to incorporate specific training in independent living and employment skills. It is apparent therefore that practitioners must set new standards and goals for the transition of individuals with intellectual disability from school programmes to adult vocational adjustment.

Furthermore, persons with intellectual disability often lack realistic information about occupations and careers on which to base their interests, and beginning in elementary school, pupils can be taught steps of decision making through classroom guidance lessons. It has been discovered that research based instructional strategies like explicit and visual instruction are effective methods for teaching decision-making skills

Early vocational development research (1950s and 1960s) did not make provision for individuals with disabilities thereby leading to little objective information regarding the career development of these individuals. When compared with their non-disabled peers, individuals with disabilities are less likely to have a variety of formative opportunities for work, salient role models; and vocationally oriented peer, family, and societal expectations. As a result people with disabilities are known to have a much higher rate of unemployment than people without disabilities.

Literature portrays a bleak picture of post-school outcomes for students with intellectual disability. The occupational aspect of this group's education has been inadequate and sporadic. Over the year's persons with intellectual disabilities

continued to have extraordinarily high unemployment rates, their employment status has been described as one of the most compelling social problems.

Because of these numerous limitations, vocational planning and training for youth with intellectual disability must be carefully programmed with nothing left to chance. To be vocationally successful, youth with intellectual disability need education, training, and employment suited to their interest, disabilities and abilities. Educators must recognize the role other factors such as parental influence, socio-economic status and gender can play in the development of successful transition for these people.

2.6   The Conceptual model
The Conceptual Model

The conceptual model on which this study is based is illustrated below:

The independent variables to be manipulated are the treatment groups: Visual Instructional Strategy, Explicit Instruction Strategy and Control group. The moderator variables are those factors, which may affect the outcome of the treatment, and these have been divided into two for the purpose of this study. The first order is the organismic factors (these factors are resident within the individual). The second order is environmental factors (factors that are resident within the environment).

The dependent variable describes the results and ultimate goals of the research. This is Vocational Interest. See   figure two below:

```
┌──────────────┐      ┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ Independent  │ ───► │ Moderating   │ ───► │ Moderating   │ ───► │ Dependent    │
│ Variables    │      │ Variable     │      │ Variable     │      │ variable     │
│              │      │ Organismic   │      │ Environmental│      │              │
└──────────────┘      └──────────────┘      │ factor       │      └──────────────┘
        │                     │             └──────────────┘             │
        ▼                     ▼                     ▼                     ▼
```

Explicit Instruction	→	*Gender		* Socio-Economic Status		Enhancing the Vocational Interest
Visual Instruction	→	-Male	→	- High Socio-Economic Status	→	of pupils with Intellectual disability.
Control group	→	-Female		- Low Socio-Economic Status		

S ──────────────────► **O** ──────────────────► **R**
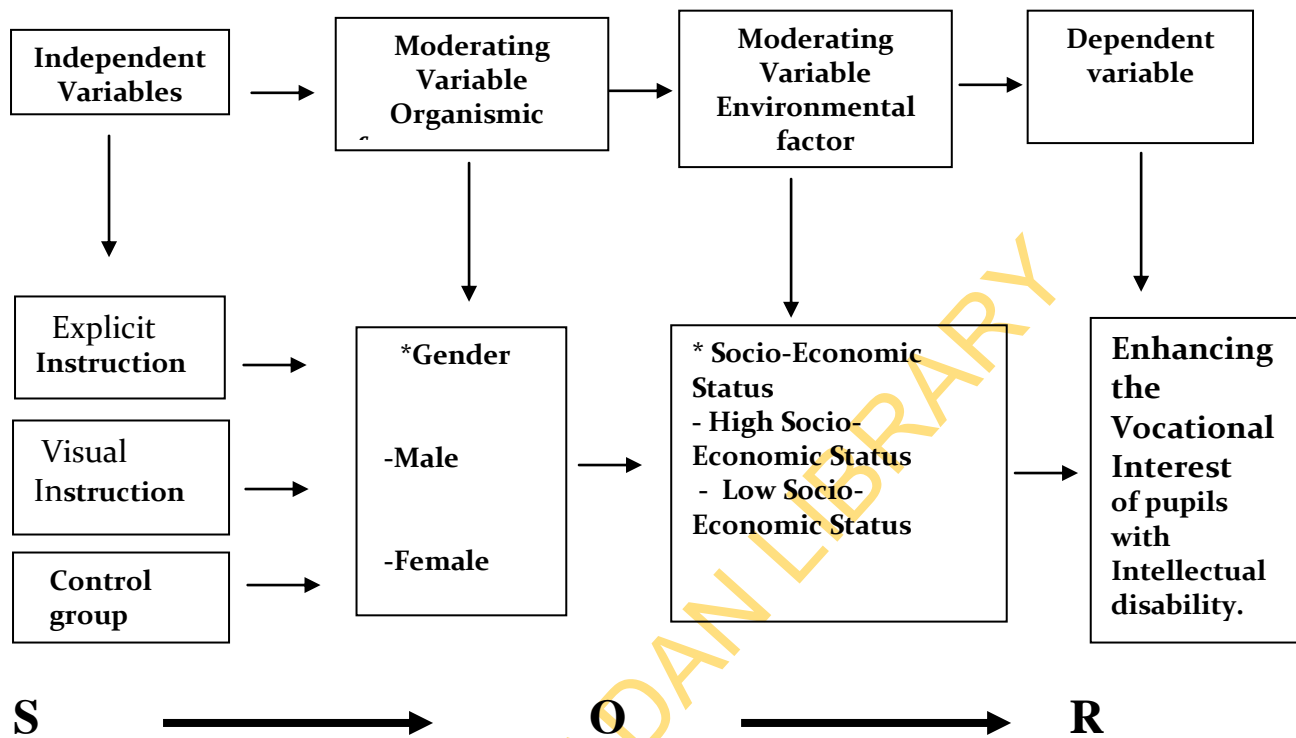
KEY
S – Stimulus
O – Organism
R – Response

Figure II: Conceptual model for the study

CHAPTER THREE
METHODOLOGY

This chapter describes research design, variables of the study, sample and sampling procedure, instrumentation, treatment procedure, scoring of instruments and method of data analysis.

3.1   Research Design

The study adopted a pre-test, post-test, control group, quasi-experimental design; the design utilized a 3x2 factorial matrix.

The design is represented below:

Experimental 1 (E1): $O_1 \, X_1 \, O_4$

Experimental 2 (E2): $O_2 \, X_2 \, O_5$

Control   3 (C): $O_3 \, X_3 \, O_6$

Where O_1, O_2 and O_3 represent the Pre-test observation for experimental, 1, 2 and control group O_4, O_5 and O_6 represent post-test observation for experimental 1, 2 and control group respectively X_1 represents treatment of explicit instructional strategy while X_2 represents treatment of visual instructional strategy, the conventional method was used for the control group.

3.2   Variables in the study

Independent variable at three levels

(i)   Explicit Instructional Strategy

(ii)   Visual Instruction Strategy

(iii) Control group

Moderator Variables:

There are two moderator variables namely:

(i) Gender at two levels: Male and Female

(ii) Socio-Economic Status at two levels: High and Low

Dependent Variable

Vocational Interest.

Table 3.1:   Diagrammatic Representation of variables in the study

Independent Variable	Moderator Variable	Dependent Variable
Explicit Instructional Strategy	(A) Gender (i) Male (ii) Female	Vocational Interest
Visual Instructional Strategy	(B) Socio-economic status (i) High (ii) Low	
Control group		

Factorial Matrix

For the purpose of data analysis, a 3 x 2 factorial matrix was used. This comprised instructional strategy manipulated at three levels (Explicit Instructional Strategy, Visual Instructional Strategy and Control group). Gender was classified into two levels (male and female) while social economic status was also classified into two levels (high and low).

Table 3.2: Factorial Matrix Table

A 3x2 factorial matrix of the quasi experiment is presented below:

Treatment	Gender	Total		
		High	Low	
Experimental group 1	Male	4	3	7
EIS	Female	1	2	3
Experimental group 2	Male	3	4	7
VIS	Female	1	3	4
Control group	Male	5	1	6
CG	Female	1	2	3
Grand Total		15	15	30

The above table showed the treatment conditions (T) as the experimental condition where:

EIS - Explicit Instructional Strategy

VIS - Visual Instructional Strategy

CTM - Conventional Teaching Method

3.3   Population

The target population of the study comprised primary five pupils with mild intellectual disability in selected school for the handicapped in Ibadan, Oyo State.

3.4   Participants

Participants for the study comprised thirty (30) primary five pupils (20 males and 10 females) of ages 12-22 years with mild intellectual disability in Ibadan. Primary five pupils were used because they were matured for transition from school to work. Since, many of these pupils may not proceed to secondary school because of their low intelligence quotient.   It is important they are exposed to vocational activities that will enable them to become independent in life at this stage. Primary five pupils were also used because the social studies curriculum makes provision for topics on vocation, work and employment at this level. Ten pupils were selected from each of the schools.

3.5   Schools

Three public primary schools for the handicapped children were selected for the study

   i.   HLA School for the Handicapped, Agodi Ibadan.
   ii.   School for the Handicapped, Ring Road Ibadan.
   iii. C.A.C School for the Handicapped, Oniyanrin.

3.6   Inclusion criteria for the study.

1. Pupils exhibit intellectual disability
2. Pupils have mild intellectual disability
3. Pupils with no multiple handicapping condition only intellectual disability
4. Ability to participate in the treatment sessions very well
5. Public school for the handicapped children
6. Special education teachers having NCE as minimum qualification
7. Co-educational schools

3.7   Sampling Procedure

The researcher used purposive sampling technique to select the school and participants for the study. There are eleven schools for the handicapped in Ibadan and

its environment, three of the schools were selected because they have pupils with intellectual disability. Purposive sampling was used in other to select the targeted group that satisfied the criteria for participation in the study that is pupils with mild intellectual disability in Primary five. All primary five pupils in the three schools were initially selected for the study, a further screening exercise for the nominated participants was carried out using Slooson's Intelligence Test (SIT) to identified pupils with mild intellectual disability. Ten pupils were selected from each school, a total number of 30 pupils were purposively selected for the study. The pupils were classified into groups (male and female) and socio-economic status scale was used to classify pupils into high and low socio-economic status. The three schools and the pupils identified as mild intellectually disabled were assigned into the two experimental groups and control group, using simple random technique.

3.8   Instrumentation

Three instruments were used in this study for the purpose of data collection.

(i)   Slooson's Intelligence Test (SIT)

(ii)   Reading-free Vocational Interest Inventory (RFVII).

(iii)   Social Economic Status Scale (SESS).

3.8.1 Slosson's Intelligence Test (SIT)

Slosson's Intelligence Test (SIT) for children and adult is a screening instrument for children and adult as a measure of ability. It was constructed and validated by Slosson in 1961 renormed in 1981 and 2008. It was designed and organized as a test of general intelligence. Slosson's Intelligence Test is a standardized scale, it is a flexible instrument that has been adapted to suit African children. For example, certain words and items were changed to suit the culture of the testee without altering the content validity of the test. Oduolowu (1998), Oyundoyin (2005) used the test, found the test useful and suitable. SIT require little specialized training to administer and it took only about 20 minutes to administer and score.

The 1960 revision of Stanford-Binet (SB) Intelligence Test was used by Slosson as the criterion in building the test and in establishing its validity. His sample included 701 persons ranging in age from 4 years to 18+ years. Concurrently, validity coefficient were calculated separately for each age level and ranged from .90 to .98. It

77

was concluded that SIT correlated with its criterion. The validity and utility of the SIT thus appeared to be well established.

The test is being used in this study to assess the intelligence quotient of the respondent (sample) and identify the pupils with mild intellectual among the population in the schools. This is necessary in other to ascertain the pupils with mild intellectual disability who are main focus of this study constitute the subject of the study.

3.8.2   Reading-Free Vocational Interest Inventory (RFVII: 2)

The Reading-free Vocational Interest Inventory grew out of a test developed at Colomubus State School for pupils with intellectual disbility in Columbus Ohio. The Reading- Free Interest Inventory: 2 (R-FVII: 2) is the year 2000 revision of the 1975 and 1981 Reading-Free Vocational Interest Inventory. The 1975 version of the test was first published by American Association on Mental Retardation. The R-F VII: 2 is a non-reading vocational preference inventory for use with pupils with intellectual disability, learning disabilities, the disadvantaged and regular classroom students. The non-reading feature of the inventory requires no verbal symbols or written statement for interpretation by examinees. Instead, pictorial illustrations with occupational significance are presented in a forced-choice technique whereby an individual must choose the vocational activity that is most characteristic of him or her.

It consists of a series of 165 artist-drawn pictures of occupational significance displayed in 55 triads illustrations are drawn with relevant occupational tools or equipments and set in natural environment, specifications for artwork. Individuals are asked to mark the one occupational activity he or she most prefers in each set of pictures. Responses are keyed to yield scores in eleven interest areas and five clusters. A Cluster Quotient is obtained for each examinee from a combination of related interest area scores. The interest categories are: Animal Care, Automotive, Building Trades, Clerical, Food Service, Horticulture, Housekeeping, Laundry Service, Materials Handling, Patient Care, and Personal Service. The clusters are: Mechanical, Outdoor, Mechanical/Outdoor, Clerical/Personal Care, and Food Service/Handling Operations.

The R-FVII: 2 was developed to provide systematic information on the range of interest patterns of the special needs individual who is diagnosed with intellectual disability learning disability and the disadvantaged as well as vocational interest

information on the regular classroom students. The R-FVII: 2 is the product of a comprehensive review of 25 years with physically challenged and individuals with mental retardation in the USA and foreign countries.

The *R-FVII:2* uses a single Inventory Booklet for both males and females; both sexes respond to the same illustrated job tasks in each of the occupational categories. The single form of the Inventory Booklet is in compliance with Title IX prohibiting sex discrimination in education. Each Inventory Booklet has two detachable pages that provide a complete record of interest and cluster scores that is used as a permanent record of an individual's vocational likes and dislikes. Included on the examinee's record sheet is a descriptive rating chart where the examiner can indicate the occupational interest categories and clusters as: High, Above Average, Average, Below Average, or Low interest. The Manual contains the normative tables and a description of the Scales and Clusters; suggested jobs within each of the categories, directions for administering, profiling, scoring, and interpreting the results. A complete profile is presented and interpreted with reported standard scores, percentile ranks and descriptive ratings.

Administration of the R-FVII: 2

The R-FVII: 2 is a self administering test, it was administered to pupils with mild intellectual disability in the three schools. Male and female were provided with the same test. It was used to measure their vocational likes and dislikes, which will invariably help them to choose realistic occupation they can engage in thereby making them independent in life.

3.8.3 Socio-Economic Status Scale (SESS)

This scale was designed by Salami 2000 to investigate the socio-economic of pupils through their parent's occupation, educational level, residence and types of equipment in the house. The scale has 12 items, the items 1-4 in the scale are on the pupils bio-data. The items 5-12 are based on parents' occupation, educational level, residence and types of equipment in the house.

Scoring and interpretation of scores; The scoring pattern for the scale is

Parent Occupation	1 - 10 points
Educational Level	1 - 14 points
Parents residence	1 - 6 points

Types of house	1 - 3 points
Equipment in the house	1 - 17 points

The maximum point is 50. The point is further divided into three parts:

0 - 15 points	Lower socio-economic class
16 - 40 points	Medium socio-economic class
41 - 60 points	High socio-economic class

All the items were properly explained to the pupils in vernacular (Yoruba) and the research assistant assisted in filling the questionnaire.

The scale has a reliability coefficient of 0.73. The researcher adopted the scale and also subjected it to test-re-test in order to further ascertain the reliability coefficient using Cronbach alpha. The report showed that $r = 0.87$, the scale was found to be reliable.

3.9   Procedure for Test Administration

3.9.1   Visit to the schools

The study was conducted in three schools in Ibadan Metropolis of Oyo State. The schools are: School for the Handicapped, Ring Road, C.A.C School for the Handicapped, Oniyarin and H.L.A, School for the Handicapped, Agodi. Before the commencement of the treatment session, the researcher visited the three schools to ascertain and established their conformity to the criteria set for selection of participants.   The research collected letter of introduction from the Department Special of Education, University of Ibadan to the Head Teachers of the three schools. The Head Teacher of each school in turn introduced the researcher to the class teacher. The teacher introduced the researcher to the pupils. The researcher then established rapport with the pupils.

The teachers were acquainted with the purpose of the study and the lessons to be taught. Their opinions were sought to know how to carry out the research. This is necessary because they were familiar with the pupils, the subject of this study. They served as research assistants in the treatment sessions.

3.9.2   Screening

The researcher used the Slosson's Intelligence Test (SIT) to screen pupils for mild intellectual disability. The three special primary schools include:

   i. H.L.A, School for the Handicapped, Agodi, Ibadan.

ii. School for the Handicapped, Ring Road, Ibadan.

iii. C.A.C School for the Handicapped, Oniyarin.

This is necessary in other to identify pupils with mild intellectual disability in the three schools who were the subjects of the study.

3.9.3 Training of the Research Assistants

The Research assistants were trained for two weeks prior to the commencement of the treatment session by the researcher. They were exposed to training for three days in a week and an hour for each meeting. This is necessary to enable research assistants understand what they are supposed to do during the treatment session. They were exposed to class organisation, lesson plan, methods of teaching and evaluation of the subjects of the study. The researcher coached the assistants by providing feedback on implementation and answering questions about the Explicit Instructional Strategy and Visual Instructional Strategy. During the weeks of implementation, the research assistants were observed by the researcher once a week to monitor implementation.

3.10 Treatment Strategy

The treatment consisted of three phases namely: Pre-treatment, Treatment and Post treatment.

Table 3.3: Procedure for the Treatment

WEEKS	ACTIVITIES
1 – 2	Training of the research assistants and assigning pupils to their different groups.
3 – 4	Pre-test of Reading-free Vocational Interest Inventory (RFVII).
5 – 12	Exposing pupils to Explicit Instructional Strategy and Visual Instructional Strategy.
13	Post- test of Reading-free Vocational Interest Inventory (RFVII).

3.10.2 Pre-Treatment Assessment

Screening of the pupils

Pre-treatment assessment was conducted to screen subjects for mild intellectual disability and to ascertain the entry behaviour of the pupils.

3.10.2 Description of Treatment Package

The lessons guides were patterned after Super's (1992) description of career development and on the components of vocational programmes. According to Super's concept of career needs, values, and interests are major personality variables that influence career development, which interact with social policy that is the labour market and self-concept. In line with this theory, five topics were developed to determine the subjects' values, needs, interests, and self-concept: **Definition of work or vocation**, Functions of work, **Reasons for Working** (Would you like to work and why? **Self-Awareness,** is there any particular occupation you would like to be involved in? Why do you want to work in this occupation?). Two other topics addressed familiarity with the labor market: **Knowledge About the World of Work and Vocational interest** and **Choice,** Types of occupation (What kind of occupations do you know? How should one behave at work?) These seven topics could also be divided into two areas: (a) the world of work (How do you define work? Why do people work? What kind of occupations do you know?) and (b) attitudes and interests regarding the world of work (Would you like to work and why? Is there any particular occupation with which you would like to be involved? Why do you want to work in this occupation? How should one behave at work?).

The treatment was carried out thrice a week for eight weeks with the two treatment groups. Each group session lasted for thirty-five minutes. Subjects in the control group were taught vocational interest and choice using the conventional method. The duration of the lessons was for the same length of time as for treatment groups. The same test was administered at the beginning and the end of the experiment. The course content for the two methods were the same, as well as the classroom management and rules.

In the course of caring out the treatment the subjects were taught using both English and vernacular local languages (Yoruba) for proper comprehension and clarity, this is because pupils with intellectual disability have low comprehension

ability and intelligence and may find it difficult comprehending what is being taught if the instruction is carried out mainly in English language.

3.10.3 Classroom Procedure for each Lesson

Each lesson was divided into the following subheadings:

i.   Topic and Content: issues on vocational interest were discussed.

ii. Performance Objectives: The aims of the lesson were stated here.

iii. Instructional Materials: The instructional materials that were used during the lessons were listed; these included pictures, books, concrete object, word card, chart and chalkboard.

iv. Presentation: The skills taught were described step by step clearly and logically.

v.   Evaluation: Pupils were asked questions at the end of each lesson as a means of assessing their levels of understanding.

vi. Conclusion: This contains a review of the main points in each lesson, for both programmes; Explicit instructional strategy and Visual instructional strategy. Thirty-two lessons were taught, apart from the pre-test and post-test session.

3.10.4 Pretest Assessment

Before the commencement of the eight weeks treatment programme pupils were pre-tested with Slooson's Intelligence Test and Reading-free Vocational Interest Inventory. The test was conducted a week preceding the treatment programme. The researcher was there to supervise the research assistant to be sure they did the right. The test papers were retrieved from the pupils since the same test was used for post test at the end of the treatment.

3.10.5 Experimental Group I: Explicit Instructional Strategy

The programme lasted for 8 weeks; three days per week of thirty five minutes was utilized. The topics taught include definition of work, importance of work, self awareness, knowledge about the world of work or vocation, vocational requirement, types of vocation developing vocational interest and making choice. Two weeks was used for definition and importance of work or vocation, two weeks for self awareness and requirement for different vocation. Three weeks on different types of vocation

and its requirement, one week on developing vocational interest and making realistic choice based on their interest.

The topics were broken down into units for pupils' understanding. The aims of the lesson were clearly stated and previous lessons were reviewed with the pupils each day before the commencement of the day topic. Each lesson was explained to the pupils and they were allowed to respond to what they have learnt with guided assistance.

3.10.6 Experimental Group 2: Visual Instructional Strategy

The programme lasted for 8 weeks. Three days per week for thirty minutes. The researcher used visual instructional to teach vocational interest making use of the same topics as in explicit instructional strategy.

3.10.7   Procedures for group III: The control method

The pupils in the experimental group received instruction on vocational interest through conventional method. The conventional approach left the third group without treatment, they also took part in the pre-test and post-test, same as in experimental groups 1and 2.

3.11 Post Test

At the end of the eight week, the researcher administered the post tests using Reading-Free Vocational Interest Inventory (RFVII; 2) used for the pre-test assessment for all the participants including the control group.

3.12   Method of Data Analysis

The descriptive and inferential statistics were used to analyses the data collected. The descriptive statistics used in the study include frequency counts means and standard deviation. It was used to compute the unadjusted and adjusted mean scores and standard deviations of the various variables in the study. The inferential statistic of ANCOVA (Analysis of Covariance) was used to test 5 null hypotheses at 0.05 level of significance in order to test the significant differences among means of experimental groups and the correlation of the initial measures and dependent variables. A 3x2 factorial matrix was used to analyze each independent variable based on the three groups of treatment, two groups of gender and socio-economic status respectively..

84

Also the Multiple Classification Analysis (MCA) was used to determine the magnitude of the various group. Further, to trace the source(s) of significant mean effect, the Duncan Pairwise Comparison was used as a post hoc measure.

RESULTS

This chapter presents the results obtained from the five null hypotheses stated in the study. The results are presented in form of tables. The statistical techniques that were used, methods of data analysis and results obtained were described.

4.1   Presentation of Results

Hypothesis One: There is no significant main effect of treatment on vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional strategy and those in the control group.

To test this hypothesis, tables 1, 2 and 3 are presented.

Table 4.1: Analysis of Covariance (ANCOVA) of Effect of Treatment on Vocational Interest of Pupils with Intellectual Disability

	Hierarchical Method				
Source of Variance	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig**
Covariates PRE-TEST	3434.890	1	3434.890	219.622	.000
Main Effects TREATMENT	251.436	2	125.718	8.038	.002*
Model	3686.326	3	1228.775	78.566	.000
Residual	406.641	26	15.640		
Total	4092.967	29	141.137		

* Significant at $p < .05$

The summary of ANCOVA results for the effects of treatment presented in Table 4.1 shows that the main effect of treatment is significant ($F_{(2, 26)} = 8.038$; $p < .05$). This means that the difference in the vocational interest scores of pupils with mild intellectual disability exposed to the explicit, visual and conventional instructional strategies is significant. This implies that instruction contributed significantly to the variation in pupils' vocational interest scores. Thus, there is significant difference in the vocational interest of pupils with mild intellectual disability exposed to Visual Instructional strategy, Explicit Instructional Strategy and the Control Group.

In order to find out the magnitude of the mean score of the pupils in each of the three groups, Multiple Classification Analysis (MCA) which is a table of descriptive statistics was used and this is presented in table 4.2 below.

Table 4.2: Multiple Classification Analysis of Post-test of Vocational Interest Score of According to Treatment

Grand mean = 63.97

| Treatment + Category | N | Predicted Mean | | Unadjusted | Eta | Adjusted for Factors and Covariates | Beta |
		Unadjusted	Adjusted for Factors and Covariates				
Explicit	10	68.80	63.61	4.83		**-.36**	
Visual	10	70.20	67.97	6.23	.678	4.00	.268
Control	10	52.90	60.32	-11.07		- 3.64	
Multiple R	= .949						
R Square	= . 901						

Table 4.2 shows that pupils in the visual instructional strategy got the highest adjusted post test mean score in vocational interest ($\bar{x}$ = 67.02; adjusted deviation = 4.00). This is followed by pupils exposed to the explicit instructional strategy ($\bar{x}$ = 63.61; adjusted deviation = -.36) while the control group had the lowest mean score ($\bar{x}$ = 60.32; adjusted deviation = - 3.64). It is worthy of note that the variable, i.e instructional strategy, correlate positively with pupils' vocational interest (R = .949) and it determined the dependent measure to the tune of 90.1%. This implies that strategy of instruction is an all important factor towards the determination of pupils' vocational interest.

In order to trace the source(s) of the significant effect of treatment on pupils' vocational interest the Duncan Post Hoc analysis was carried out, Table 4.3 is presented.

Table 4.3:   Duncan Post Hoc Test on Vocational Interest by Treatment

Treatment	X	Explicit	Visual	Control
Explicit	63.61			*
Visual	67.02			*
Control	60.32	*	*	

* Pairs of groups significantly different at < .05

From Table 4.3, two pairs of groups' i.e Explicit versus Control as well as Visual versus control produced significant difference when compared. This means that the significant main effect of treatment obtained on Table 3 is due to the pair-wise difference between Explicit and control group. There is however no significant difference between the Explicit and visual instructional groups.

On the basis of these findings therefore, the null hypothesis 1 which states that there is no significant main effect of treatment on vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional strategy and those in the control group is rejected.

Hypothesis Two: There is no significant main effect of Socio-Economic Status on vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional Strategy and those in the control group.

Table 4.4: Analysis of covariance (ANCOVA) of Vocational Interest of pupils with Intellectual Disability by Socio Economic Status

Source of Variance		Hierarchical Method				
		Sum of Squares	df	Mean Square	F	Sig
Covariates	PRE-TEST	3434.890	1	3171.207	164.175	.000
Main Effects	SES	93.180	1	93.180	4.454	.044*
Model		3528.071	2	1764.035	84.315	.000
Residual		564.896	27	20.922		
Total		4092.967	29	141.137		

* not significant at p< .05

Table 4.4 shows that the main effect of socio-economic status on pupils vocational interest Significant ($F_{(1, 27)} = 4.454$; $P< .05$). This means that pupils' socio-economic status is significantly different across the higg and low socio-economic status. Hypothesis 2 is hereby rejected.

Table 4.5: **Multiple Classification Analysis of Pupil Vocational Interest by Socio Economic Status (SES)**

Grand mean = 63.97

Socio-Economic Status + Category	N	Predicted Mean		Deviation			Deviation	
		Unadjusted	Adjusted for Factors and Covariates	Unadjusted	Eta		Adjusted for Factors and Covariates	Beta
Low	15	62.60	62.20	-1.37			-1.76	
High					.117			.151
	15	65.33	65.73	1.37			1.76	
Multiple R	=	.928						
R Square	=	.862						

The MCA Table 4.5 shows that pupils from high socio economic status background obtained higher vocational interest adjustment mean score ($\bar{x} = 65.73$, adjusted deviation = 1.76) than those from the low socio- economic status background ($\bar{x} = 62.20$, adjusted deviation = -1.76). Further, socio-economic status determined 86.2% of the total variable in pupils' vocational interest. This also is an indication that the factor is a strong determinant of pupils' vocational interest and it significantly determined the dependent measure as obtained from Table 4.5.

4.1.3 Hypothesis Three: There is no significant interaction effect of treatment and socio-economic status on vocational interest of pupils with mild intellectual disability.

Table 4.6: Two way Interaction of Treatment and Socio-Economic Status of pupils with Mild Intellectual Disability Vocational Interest

Source of Variance		Sum of Squares	df	Mean Square	F	Sig
		Hierarchical Method				
Covariates	PRE-TEST	.	1	3434.308	303.712	.000
Main Effects	(Combined)		3	113.355	10.023	.000
	TREATMENT		2	125.718	11.116	.000
	SES		1	88.628	7. 836	. 010
2–WayInteractions	TREATMENT					
	*SES		2	28.945	2.559	.099n.s
Model			6	638.807	56.483	. 000
Residual			23	11.310		
Total			29	141.137		

n.s = not significant at p< .05

From Table 4.6, it is found that the interaction effect of treatment and Socio-Economic Status on pupils' vocational interest is not significant ($F_{(2, 23)} = 2.559$; p > .05). This means that pupils' response and performance in the different instructional strategy groups did not depend on their Socio-Economic Status background. Hypothesis 3 is therefore not rejected.

Hypothesis Four: There is no significant difference in the pre-test vocational interest scores of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional Strategy and those in the control group.

The pre-test scores of the male and female pupils were subjected to independent samples t-test to find out if there were initial differences in their vocational interest.

Table 4.7:   T-test Comparison of Male and Female Pupils' Vocational Interest

Gender	N	$\bar{x}$	Std. Deviation	T	Df	P	Remarks
Male	20	53.65	10.68	**-.**542	28	**.**592	
Female	10	55.80	9.24				not Significant

From Table 4.7, female pupils obtained higher vocational interest scores ($\bar{x}$ = 55.80; SD =9.24) than their male counterparts ($\bar{x}$ = 53.65; SD = 10.68) at the pre-test level. While the female performed better based on the mean scores, this difference is not significant (t = -. 542; df = 28; p>.05). Hence, hypothesis four is not rejected.

Hypothesis Five: There is no significant effect of gender on post-test vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional Strategy and those in the control group.

Since the initial difference at the pre-test level is not significant as obtained from Table 4.8, t-test is further used to test hypothesis five.

Table 4.8:   T-test Comparison of Male and Female Pupils' Post-test Vocational Interest

Gender	N	$\bar{x}$	Std. Deviation	T	Df	P	Remarks
Male	20	63.45	12.78	**-.**332	28	**.**743	
	10	65.00	10.40				not Significant

Table 4.8 shows that the female pupils' post test mean score in vocational interest is higher ($\bar{x}$ = 65.00; SD = 10.40) than their male counterparts ($\bar{x}$ = 63.45; SD = 12.78). Further, this difference is found not to be significant (t = -.332; df =28; p > .05). This implies that there is no significant effect of gender on pupils' vocational interest. Therefore hypothesis five is not rejected.

4.2   Summary of Results

The summary of the major findings of this study are as follows:

1. The findings of this study revealed that the main effect of treatment in the post-test vocational interest scores of subjects is significant. This implies that there is significant main effect of treatment on vocational interest of pupils with mild intellectual disability exposed to Visual Instructional Strategy, Explicit Instructional Strategy and the Control group.

    The subjects who were exposed to Visual Instructional strategy had the highest post-test vocational interest. This is followed by the subjects treated with Explicit Instruction strategy, while the control group had the lowest post-test mean scores. The two strategies were found to be superior to the control group.

2. There is significant main effect of socio-economic status on vocational interest of pupils with mild intellectual disability exposed to Visual Instructional Strategy, Explicit Instructional Strategy and the Control group. The Multiple Classification Analysis (MCA) indicated that pupils with high socio-economic status had higher post-test mean score, than pupils with low socio-economic status.

3. There is no significant interaction effect of treatment and socio-economic status on the pupils' vocational interest.

4. There is no significant difference in the pre-test vocational interest scores of male and female pupils'. However, the female pupils had slightly higher score than their male counterparts.

5. Gender had no significant effect on post-test vocational interest of pupils with mild intellectual disability. Although, female pupils performed better in the post test mean vocational interest scores than their male counterparts.

CHAPTER FIVE

DISCUSSION OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

In this chapter, the discussion of findings based on the major variables examined in the study, educational implications and recommendations are presented. Suggestions for further studies and conclusions are also highlighted.

5.1   Discussion of Findings

Hypothesis one states that there is no significant main effect of treatment on vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional strategy and those in the control group. The results of tables 1, 2 and 3 indicated that there was significant difference in the vocational interest of pupils exposed to explicit instructional strategy, visual instructional strategy and the control group. This research has indicated that the instructional strategies developed for this study (Explicit Instructional Strategy and Visual Instructional strategy) have contributed significantly to the development of s vocational interest of pupils with intellectual disability. Based on the above, it could be inferred that post treatment differences found in the scores of experimental and the control groups were due to the effectiveness of the two treatment programmes used in the research. Also the significant outcome in the improvement of the vocational interest of pupils exposed to explicit instructional strategy and visual instructional strategy is rooted in the fact that these participants received comprehensive training unlike the control group who were not treated. The pairwise comparison Post Hoc Test result showed that visual instructional strategy proved more effective in the development of vocational interest of pupils with mild intellectual disability than explicit instructional strategy.

This findings agreed with (Anna, 2009) and Stock and Davies, (1997) that visual instructional strategy increase pupils' interest and motivation to learn, because visuals gives meaning to words by providing more concrete reference thus helping to prevent misconception. Also the findings supported the view of The International Encyclopaedia of Education, (1995) that visuals enable pupils' to have holistic understanding of concepts that words alone cannot convey. Visual presentation allows representation of parts and whole in a way that is not available in sequential structure of text. This finding also supports the assumptions of Tammi Reynolds and Dombeck,

(2006) which indicated that Persons with intellectual disability benefit and do better in environments where visual aides such as charts, pictures, and graphs are used as much as possible.

Fountas and Plural (2001) confirmed that when content is illustrated with diagrams, the information can be maintained by students over a period of time. The (U.S. Department of Education, 1987) opined that over the past several years, the "No Child Left Behind Act" (NCLB, 2001) emphasized the concern for the educational accountability of schools in the achievement of student success. This act can leads to increased performance from teachers and administrators in relation to the learning strategies used in classrooms. Research shows that visuals are an example of a proven strategy. The finding of this study also corroborated other findings from empirical studies, Platt Henry, (2010), and Sowers, Verdi, Bourbeau and Sheehan, (2007) in examining the effects of visual instruction with pupils with intellectual disability they found out that it helped them to acquire vocational skills. Also, Davis and Secor, (1996) examined the effect of picture task sequences and audio in teaching individuals with mental retardation the complex task of operating an automated teller machine and to perform various independent living and work tasks they found that instructional procedures which had a visual component were found to be superior to a procedure which employed only the use of verbal component. Thus, the empirical results of this present study suggest that visual instructional strategy should be considered as useful technique in teaching pupils with intellectual disability.

It is confirmed in this study that explicit instruction is also more effective in developing the vocational interest of the pupils with mild intellectual disability than the conventional method, this is in line with the findings of Instructional Strategy Online, (2009), Dada, (2004), Hall, (2002). They found that explicit instruction was very effective in directing pupil attention towards specific learning in a highly structured environment thereby producing specific learning outcomes such as developing vocational interest. Similarly, in the findings of Edward-Grooves, (2002) and meta-analysis conducted by Adams (1996) indicated that teaching using explicit instruction is most beneficial for low performing students and students in special education.

The pupils in the control group had the least performance; this is because the conventional method of teaching was used for them. In this method, the teacher is the

most active person; the learner is mere passive listeners. There is minimal interaction between the teacher and individual pupils. Okafor (1999) said that this method is wasteful and unproductive because the slow and average learners do not benefit much when taught by the method. Okoruwa (2007) also confirmed that the method is found to be autocratic, dull, boring and provide little or no feedback to the learner. Teaching pupils with intellectual disability vocational interest is more than using conventional method (chalk- and- talk method), the teacher needs to teach, explain, demonstrate, model, illustrate, break information into smaller part and show various action pictures for effective teaching and learning. There is a need therefore for teachers to adopt better strategies which focused on pupils' active participation that this study had adopted (visual instructional strategy and explicit instructional strategy).

Hypothesis Two

There is no significant main effect of Socio-Economic Status on vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional Strategy and those in the control group.

The effect of socio-economic status on the vocational interest of pupils with mild intellectual is significant, this implies that socio-economic status have contributed significantly to the development of vocational interest of pupils with mild intellectual disability. It has been discovered that pupils from high socio-economic status background do perform better both academically and vocationally than pupils from low socio-economic status. Literature also support the fact that high socio-economic status is associated with high academic achievement and career development (Dada 2004,Obani 2007,) while low socio-economic status is associated with low academic performance. The findings supported the assumptions that families with high socioeconomic status often have more success in preparing their young children not only for school but for vocation as well because they have access to a wide range of resources to promote and support young children's development. They are able to provide their young children with high-quality child care, books, and toys to encourage children in various learning activities at home. Also, they have easy access to information regarding their children's health, as well as social, emotional, and cognitive development. In addition, families with high socioeconomic status often seek out information to help them prepare their young children for school. This

finding also supported many previous studies that socio-economic affects pupils outcomes, North Central Regional Educational Laboratory (2010), Jeynes (2002), McNeal, (2001), Seyfried (1998), and Majoribanks (1996). Studies also found that pupils with low socio-economic background earn lower test scores Eamon, (2005), and Hochschild, (2003). Aikens and Barbarin (2008) also supported the views that families from low socio-economic status are less likely to have financial resources or time availability to provide children with academic support. This is not surprising because students from high socio-economic background tend to have access to materials and information that enable them to excel in school.

The finding is also in line with Rothman's (2003) study on the inter-relationship of education and socio-economic status which revealed that within the same school, a student who comes from a higher socio-economic group will achieve better test results than a student from a lower socio economic group. Research by the RAND Corporation (Lara-Cinisomo, 2004) also found that the most important factors associated with the educational achievement of children are not race, ethnicity, or immigrant status rather the most critical factors appear to be socioeconomic ones; parental education levels, neighbourhood poverty, parental occupational status, and family income.

Hypothesis Three

There is no significant interaction effect of treatment and socio-economic status on vocational interest of pupils with mild intellectual disability. The result showed that the interaction effect of treatment and Socio-Economic Status on pupils' vocational interest is not significant. This means that pupils' response and performance in the different instructional strategy groups didnot depend on their socioeconomic status background. This finding contradicts the belief that socio-economic status is a key determinant of student's educational achievement and that it continues to play a significant part in the kinds of outcomes from schooling experienced by young people NSW Department of Education and Training (2010). The result obtained showed that effective teaching strategy and material can greatly enhanced learning outcome.

Hypothesis Four

There is no significant difference in the pre-test vocational interest scores of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional Strategy and those in the control group. The result showed that gender had no significant main effect on pupils' vocational interest. This means that male and female pupils with mild intellectual disability did not differ significantly in their scores in vocational interest. However, female performed better based on the mean scores their male counterparts. This view tends to be in line with that of Rosenthal and Rubin (1982) together with that of Hyde (1981) that differences between male and female students in intellectual performance in schools have been demonstrated on a wide range of variables Maccoby and Jacklin (1974) concluded that cognitive differences in gender were well established. Girls have greater verbal, ability than boys.

Hypothesis Five

There is no significant main effect of gender on the vocational interest of pupils with mild intellectual disability exposed to Explicit Instructional Strategy, Visual Instructional Strategy and those in the control group. The result showed that gender had no significant main effect on pupils vocational interest. This means that male and female pupils with mild intellectual disability did not differ significantly in their scores in vocational interest. However, the female pupils still performed better than their male counterparts in the post test vocational interest scores. The findings of this study is in line with the findings of Chambers and Schreiber that little or no difference in the achievement of the two sexes.

5.2 Contribution to knowledge

This study has contributed to the existing body of knowledge in the following ways:

The study has established the fact that Visual and Explicit Instructional Strategies were found effective in enhancing the vocational interest of pupils with mild intellectual disability.

The study has also shown that the two strategies can help to equip pupils with intellectual disability to make the right vocational choice based on their interests and abilities. The weakness of the control group method to develop vocational interest has been discovered. It is pertinent that educators should look beyond the traditional

educational programmes for pupils with intellectual disability and work towards preparing them for the multidimensional demand of adulthood in terms of realistic vocational aspiration.

In addition, the findings of this study suggest the need to intensify the use of specific instructional approach such as visual and explicit instruction in the development of vocational interest and skill of pupils with intellectual disability. Also, the two strategies can be used both in the general education classrooms as well as in special education settings in Nigeria.

The findings also suggest that teachers could use the reading free vocational inventory used by the researcher to identify, enchance and develop vocational interest of pupils with intellectual disability.

5.3   Implications of the findings

This study has contributed to the existing body of knowledge in the following ways:

The study has established the fact that instructional strategies such as visual instructional strategy and explicit instructional strategy are very good strategies to enhance the vocational intrerst of pupils with intellectual disability.

The study has shown that pupils with intellectual disability can develop vocational interest and make realistic vocational choice with the use of appropriate instructional strategies such as visual and explicit instructional strategies. These strategies have the potential to equip the pupils with the abilities to develop vocational interest and make realistic vocational choice thereby becoming independent and productive members of the society.The two strategies are very useful in contrast to the conventional method used for the control group. It is a fact that teachers have to use other strategies apart from the conventional method because it is not all that effective in enhancing the vocational interest of children with intellectual disability.

In addition, the findings of this study suggest that the two strategies can be used both in the general education classrooms as well as in special education settings in Nigeria.

Curriculum planners, school administrators, local, state and federal government need to rapidly structure a comprehensive vocational/career educational programme for pupils with intellectual disability that will run from kindergarten through secondary school. Finally, government should formulate new policies that

will ensure proper implementation of these programmes for persons with intellectual disability so that they can be productive member of the society.

The findings also revealed the need for parents to corroborate with the school in the planning and implementation of transition programme for their children with intellectual disability. This implies that there is the need for greater involvement of parents in preparing their children for realistic occupation they can engage in.

5.4   Limitations of the study

The study has some limitations. Foremost of which is the paucity of available research on the development of vocational interest of pupils with intellectual disability as well as the use of visual and explicit instructional strategies in developing vocational interest of pupils with intellectual disability.

This study is also limited by the number of pupils and schools used in the study because of the nature of the participants used.

5.5   Recommendations

Based on the findings of this study, the following recommendations are considered necessary.

It is important that a suitable comprehensive vocational/career curriculum be provided for pupils with intellectual disability, so that these people can adequately prepare for multidimensional demands of adulthood. Such curriculum must take into consideration necessary vocational skills they should acquire, career decision-making skills, career attitude that are essential for making successful transition from school to work.

Vocational Instructional and Explicit Instructional Strategies be adopted as mode of instruction in the enhancement of vocational interest and skill of pupils with intellectual disability. Teacher should endeavour to use visual instructional and explicit instructional strategies over a long period, not just in a single lesson or unit, so that considerable amount of work can be accomplished.

Regular in-service training should be organised for teachers such as seminars, workshops, symposia, conferences, and short term certificate and diploma courses. These professional development training would expose and equip them for proper understanding of different employment options and procedures necessary for the preparation of a student with intellectual disability for adult life.

Schools should be adequately equipped with necessary materials and programmes that will prepare students with disability for future employment. Specifically, pupils with intellectual disability should be provided with learning opportunities that will help them develop skills necessary to live in the society as well as individualized education programme that is functional and based on the student's unique characteristics and preferences.

Establishment of legislation that will necessitate schools to prepare students with intellectual disability for transition to adult life by incorporating a statement of needed transition services into the curriculum which should not later than age 16.

5.6   Conclusion

This study was carried out to determine the effects of visual and explicit instructional strategies in enhancing the vocational interest of pupils with mild intellectual disability. Findings have shown that the two strategies are effective; visual instructional strategy is more effective than explicit instructional strategy while the conventional method used for the control group was found to be the least effective of the three. This study is a new insight in vocational interest development of persons with intellectual disability in Nigeria, therefore its findings should be put into use to enhance their vocational interest. The study also contributes to the small but growing knowledge base of vocational development as well as instructional strategies that are effective with persons with intellectual disability. Therefore, these intervention strategies should be tools for teachers to add to their repertoire of knowledge in order to enhance their effectiveness in teaching as well as improving learning outcomes for pupils with intellectual disability.

Teachers are therefore advised to look beyond the traditional educational programmes for pupils with intellectual disability and work towards preparing them for vocation they can do since the ultimate goal of educating these people is to make them independent in life.

5.7   Suggestions for further studies

Based on the findings of this study, the following suggestions are made for further studies. Further research are recommended to expand on the present study because it was limited to three schools for handicapped in Ibadan metropolis, the results cannot be generalized to other geographical locations that differ in regard to

population. Therefore, the study should be replicated in other schools for handicapped in other states of the Federation.

Moreover, further research is needed to determine the potential log range effects of treatment strategies. For instance, studies could be conducted using the same strategies for a long period of time.

Other researchers could use other strategies like Modelling , Direct instruction, contextual learning strategy, and others to enhance the vocational interest of pupils with intellectual disability apart from the strategies used in this study.

Apart from gender and socioeconomic factors studied, researchers can also explore other variables which are likely to have effects on vocational interest of pupils with intellectual disability, such as secondary psychiatric disability, assistive technology, attitude, self concept etc in enhancing vocational interest of pupils with intellectual disability.

The current study examined the impact of explicit and visual instructional strategy on the vocational interest of pupils with mild intellectual disability. However, pupils with moderate and severe intellectual disability were not included in the study. Therefore, researchers may wish to replicate the current study with the population of pupils with moderate mild intellectual disability.

REFERENCES

Abdullah, S.F., Bakar, A.R and Mohamed, O. 2009. Gender Difference and Career ACER *Research Highlights*, 2003, 8-9.

Adams, G, L. and Engelmann, S. 1996. *Research in Direct Instruction: 25 Years Beyond DISTAR* Educational Achievement Systems. Seattle,WA

Adams, G. 1996. Explicit Instruction. National Center on Accessing the General Curriculum Research & Solutions: Curriculum: Effective Classroom Practices

Ademokoya, J. A. 1994. Effects of Direct and Indirect Instructional Strategy on Fostering Reasoning Skills in Hearing Impaired Students. Unpublished Ph.D Thesis, University of   Ibadan.

Aikens, N.L and Barbarin O. 2008. Socio – Economic difference in reading trajectories. The   contribution of family neighbourhood and School Contexts. *Journal of Educational Psychology, 100, 235, 251.*

Ainley, J. 2003. Early literacy and numeracy achievement influences ENTER scores. ACER *Research Highlights, 2003, 8-9*

Ainsworth, P., and Baker, P. C. 2004. *Mental retardation.* Jackson: University of Mississippi   Press,   Retrieved   April   21,   2009, fromhttp://books.google.com/books?id=op_

Akingbade, F. E. 2008. *Effect of Gender Related Behaviour Perceptions of Applicants Competence, Social skills and Hirability in the Banking Industry in Nigeria.* Unpublished Ph.D Thesis, University of Ibadan, Ibadan

Alexander, K. L, Entwisle, D. R and Dauber, S. L. 1993. First-grade behavior: its short- and long-term consequences for school performance. *Child Dev.* 64:801–14

American Academy of Pediatrics. 2000. The role of the pediatrician in transitioning children and children and adolescents with developmental disabilities and chronic illnesses from school to work or   college. *Pediatrics* 106: 854-856.

American Association on Intellectual and Developmental Disabilities (AAIDD) 2009. *Definition of intellectual disability.* Retrieved April 21, 2009, from http://www.aaidd.org/content_100.cfm?navID=21

American Association on Mental Retardation. 2006. *Mental retardation: Definition, classification and systems of supports.* (10th ed.) Washington DC. www.aamr.org

American   Psychological   Association,   2011.   Socioeconomic   status .http://www.apa.org

American School Counselor Association. 1999.The professional school counselor and the special needs student. Retrieved March 2, 2003, from http://www schoolcounselor.org/content.cfm?L1=1000&L2=32

American School Counselor Association. 2003. *The ASCA National Model: A framework for   school counseling programs.*Alexandria,VA: Author.

American School Counselor Association. 2003. *The ASCA National Model: A framework for school counseling programs.*Alexandria,VA: Author.

Anna,   V.D.   2009.   Visual   Instruction   in   the   Public   Schools http://books.gooogle.com/books.id   April   21,   2009,   from http://www.thearc.org/NetCommunity/Page.aspx?&pid=38 3&srcid=217

Association of Retarded Citizens (ARC). 2009. *What is an intellectual disability*? Retrieved April 21, 2009, from http://www.thearc.org/NetCommunity/Page.aspx?&pid=38 3&srcid=217

Australian Council for Education Research 2003. Report shows changing impact of socioeconomic status among Australian schools. *Research Developments*, No. 10, Winter 2003, pp. 8-9

Bem, P. A. and Smith, G. F. 1981. Traits, situations, and their interaction as alternative causes of behavior. *Journal of Social Psychology*, 111, 99-104.

Bentz, N. 1993. Issues in the use of ability and interest measures with women. Journal of Career Assessment 1, 217-232

Betz, N. E. and Hackett, G. 1981. The relationship of career-related self-efficacy expectations to perceived career options of college women and men. *Journal of Counseling Psychology,* 28(5), 399-410.

Betz, N. E. 1994. Self-concept theory in career development and counseling. *The Career Development Quarterly,* 43, 32-41.

Black, R. S., and Langone, J. 1997. Social awareness and the transition to employment for adolescents with mental retardation. *Remedial & Special Education, 18,* 214–222.

Bloom B. 1964. *Stability and Change in Human Characteristics*. New York: Wiley

Bonnie,   B.   2010.   Learning   Characteristics   of   Mentally   Retarded http://www.brighthub.com/education/special/articles/35921.aspx#ixzz0nvDzgj m5

Borthwick-Duffy, S.A. 1994. Epidermiology and prevalence of psychopathology in people with mental retardation: *J. Consul. Clin. Psych.* 62:17-27.

Bradley, R. H, Corwyn, R. F. 2001. *Age and ethnic variations in family process mediators of SES*. Presented at Conf. Socioeconomic Status, Parenting, Child Dev., Minneapolis, MN

Bradley, R. H. 1994. The HOME Inventory: review and reflections. In *Advances in Child Development and Behavior*, ed. H Reese, . 241–88. San Diego, CA: Academic.

Branham, R., Collins, B. C., Schuster, J. W., and Kleinert, H. 1999. Effects of community based instruction classroom simulation training, and videotape modeling on teaching chained community skills to students with functional mental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 34,* 170-181.

Brolin, D. E. 1985. Preparing handicapped students to be productive. *Techniques, 1,* 447–454.

Brooks-Gunn J, Klebanov PK, Liaw F. 1995. The learning, physical, and emotional environment of the home in the context of poverty: The Infant Health and Development Program. *Child. Youth Serv. Rev.* 17:251–76

Brown, D., DeJesus, E., and Schiraldi, V. (2001). Barriers and Promising Approaches to Workforce and Youth Development for Young Offenders. Baltimore, MD: Annie Casey Foundation.

Brown, S 1990. Test of Nonverbal Intelligence, second edition. Austin, Texas: Pro-ed.

Brown,D., Brooks, L., and Associates. 1996. *Career choice and development* (3rd ed.). San Francisco: Jossey-Bass. Szymanski, E. M. 1999. Disability, job stress, the changing nature of careers, and the career resilience portfolio. *Rehabilitation Counseling Bulletin, 42,* 279–289.

Bucher, D. E., Brolin, D. E. and Kunce, J.T. 1987. Importance of life-centered career education for special education students: The parent's perspective. *Journal of Career Development* 13: 63-69.

Bureau of Labor Statistics (1999), New 1998-2008 Employment Projections Camberwell, Vic.

Campbell, C. A., and Dahir, C. A. 1997. *Sharing the vision: The national standards for school counseling programs.* Alexandria,VA: American School Counselor Association.

Chamber, E. A. and Schreiber, J. B. 2004. Girls' academic achievement: Varying associations of extracurricular activities. *Gender and education,* 16(3): 327-336.

Charlop, M. H.,and Milstein, J. P. (1989). Teaching autistic children conversational speech using video modeling. *Journal of Applied Behavior Analysis, 22,* 275-285.

104

Clark, R. E. 2001. A summary of disagreements with the "mere vehicles" argument. In R. E. Clark (Ed.), *Learning from media: Arguments, analysis, and evidence* 125-136. Greenwich, CT: Information Age Publishing Inc.

Corwyn RF, Bradley RH. 2000. *Developmental accomplishments and family-child activitiesof preschoolers in the United States: comparisons across three major ethnic groups and poverty status*. Presented at Meet. Southwest. Soc. Res. Hum. Dev., Eureka Springs, AR,April 13–15

Cuvo, A. J., and Klatt, K. P. 1992. Effects of community-based, videotape, and flash card instruction of community-referenced sight words on students with mental retardation. *Journal of Applied Behavior Analysis, 25,* 449-512.

Dada, O. C. 2004. *Effectiveness of Explicit Teaching and Peer Tutoring In Enhancement of Self-Help Skills among Mentally Retarded Children in Selected Primary   Schools in Oyo State.* Thesis. Special Education, Education. University of Ibadan.

Dale, E. 1954 *Audio- Visual Method in Teaching*, rev. edn. Dryden Press, New York

David, L. 2000. Brief summaries of Research Evidence to Support Instruction Advances in Teaching Students with Disabilities http://www.ncsip.org/instruction/index.html

Davies, D. K., and Stock, S. E. 1994. Picturecoach and Pocketcoach: An integrated multi-media training system for teaching and maintaining vocational skills for adults with disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 36,* 107-113.

Davis, D. K. and Wehmeyer, L. 2002. Enhancing Independent Task Performance for Individuals with Mental Retardation Through Use of a Handheld Self-Directed Visual and Audio Prompting System. *Education and Training in Mental Retardation and Developmental Disabilities, 37(2), 209-218*

Dawis, R.V. 1996. The theory of work adjustment and person environment-correspondence counseling. In D. Brown, L. and Brook (Eds), *Career Choice and Development (3rd ed 75-120.* San Francisco: Jossey-Bass.

Demarest, E.J, Reisner, E.R, Anderson, L.M, Humphrey, D.C., Farguhar, E. and Stein, S.E 1993. *Review of research on achieving the nations readiness goal*. Washington, D.C: U S Department of Education.

Denmark, F.L, and Pauludi, M.A., 1998. Women and psychology: An international perspective. *American psychologist.53,465-473.*

Dwyer, F. M. 2007. The program of systematic evaluation (PSE): Evaluating the effects of multimediainstruction 1965-2007. *Educational Technology, XLVII*(5), 41-45.

Disabilities (AAIDD) 2009. *Definition of intellectual disability.* Retrieved April 21, 2009, from http://www.aaidd.org/content_100.cfm?navID=21

Disability Rights Advocates. 1997. *Disability Watch: The status of people with disabilities in the U.S.* Volcano, CA: Volcano Press Inc.

Disbility Statisitics Center, 1997. Myths and Facts: Employment facts about People with Disabilities http: //www.inblnorg.

Doll, E. A. 1953. The Measurement of Social Competence. A Manual for the Vineland Social Maturity Scale. Washington DC: Educational Test Bureau.

Dreger, A and Julnbluth, P.E (Eds); 1994. *Educational opportunities,Tackling Ethics class and gender inequality through Research*. Waxmann Publishing co. New York, N Y

Duncan, G. J and Brooks-Gunn J. 1997. *Consequences of Growing Up Poor*. New York: Russell Sage Found. Duncan GJ, Brooks-Gunn J, Klebanov P. 1994. Economic deprivation and early childhood development. *Child Dev.* 65:296–318.

Dye, G.A., 2000. Graphic organizers to the rescue! Helping students link- and remember- information, *Teaching Exceptional children, 32(3) 72-76.*

Eamon, M. K. 2005. Social-demographic, school, neighborhood, and parenting influences on the academic achievement of Latino young adolescents. Journal of Youth and Adolescence Vol 2, 163-174

Edukugho, E. 2004. "UNESCO tackles decline in technical, vocational education;" *The Vanguard,* Nov. 25, 2004

Edward-Grooves, C. J. 2002. *Building an Inclusive Classroom through Explicit Pedagogy*: A Focus on the language of teaching. Literacy Lexicon Sydney: Prentice hall, Australia.

Ellis, E. S. 1993. Integrative strategy instruction: A potential model for teaching content area subjects to adolescents with learning disabilities. *Journal of Learning Disabilities, 26,* 358–383.

Ellis, E., Deshler, D.D., Lenz, K., Schumaker, J. and Clark, F. 1991. An instruction model for teaching learning strategies. *Focus on Exceptional Children* 23: 1-23.

Eni-Olorunda, J. T. 1998. *Modelling and Shaping Treatment Techniques in the Enhancement of Reading Skills of Educable Mentally Retarded Children.* Unpublished Ph.D Thesis, University of Ibadan, Ibadan.

Enright, M. S. 1997. The impact of a short-term career development program on people with disabilities. *Rehabilitation Counseling Bulletin, 40,* 285–300.

Fairweather, J., and Shaver, D. 1991. Making the transition to postsecondary education and training. *Exceptional Children,* 57, pp. 264-270.

Falaye, A.O. 2001. *Human life span development: A basic text in developmental psychology.* Lagos Sterling . Horden Publishers (Nig) Ltd.

Fisher, T. A., and Griggs, M.B. *Factors that influence the career development of African American and Latino youth.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, April 1994. (ED 380 532)

Folman, R. and Budoff, M. 1971. Learning Potential and Vocational Aspiration of Retarded Adolescents. *Exceptional Children.* 1971. Oct, 38(2): 121-130.

Fountas, I. C. and Pinnell, G.S. 2001. DVD Teaching for Comprehension and fluency http://www.wfsd.kiz.ny.us/guides/curriculum/third.pd

Freebody, P., Ludwig, C. and Gunn, S. 1995. The Literacy Practices in and out of Schools in Low-Economic Urban Communities. *Commonwealth Department of Employment, Education and Training, Curriculum Corporation Common Wealth of Australia. http://www.myread.org/explicit.htm 7/3/09*

Gaylord-Ross, R., and Browder, D. 1991. Functional assessment: Dynamic and domain properties. In L. Meyer, C. Peck, & L. Brown (Eds.), *Critical issues in the lives of people with severe disabilities* 45-66. Baltimore: Paul H. Brooks.

Ginzberg, E. 1952. Toward a Theory of Occupational Choice: *Personnel and Guidance Journal*

Ginzberge, E. 1984. Career development in D. Brown and L. Brooks (Eds.) Career choice and development. Applying contemporary theories to practice. San Francisco CF: Jossey Bass.

Goeke, J. F, 2009. Explicit Instruction: Strategies for Meaningful Direct Teaching. Merrill / Pearson.

Goldstein, M.T. 1993. LINK: A campus-based transition program for non-college bound youth with mild disabilities. *Career Development for Exceptional Individual* 16: 75-86.

Grossman, H. J. (Ed.). 1973. *Manual on terminology in mental retardation 1973 rev..* Washington, D. C.: American Association on Mental Deficiency.

Grubb, W.N. 1999. *Edging toward effectiveness: Examining postsecondary occupational education.* Prepared for the National Assessment of Vocational Education, U.S. Department of Education.

Guo, G. and Harris, K. M. 2000. The mechanisms mediating the effects of poverty on children'sintellectual development. *Demography* 37:431–47

Hagner, D. and Salomone, P. R. 1989. Issues in career decision making for workers with developmental disabilities. *The Career Development Quarterly* 38: 148-159.

Hall, C., Sheldon-Wilogen, J. and Sherman, J. 2000. Teaching job interview skills to retarded clients. *Journal of Applied Behaviour Analysis* 13: 433-442.

Hansel, L. M. and Campbell, D.P. 1985. Comprehensive Handbook of Psychological Assessment http://books.google.com.ng 168- 189

Hansen, J. C and Campell, D.P. 1985. *The Strong Manual.* Consulting Psychologists

Hansen, J.C. 1990. *Interest Assessment*. Chapter in S.Goldstein & M. Hersen (eds). *Handbook of psychological assessment*. 173-194. Elmsford, N.Y: Pergammon Press. ERIC Digest.

Haring, T. G., Kennedy, C. H., Adams, J. J. and Pitts-Conway, V. (1987). Teaching generalization of purchasing skills across community settings to autistic youth using videotape modeling. *Journal of Applied Behavior Analysis, 20*, 89-96.

Harrington, T. F. and O'Shea, A. J. 2000. *The Harrington-O'Shea career decision-making system revised Level 1 booklet and level 2 survey booklet: Hand-scored edition.* Circle Pines, MN: American Guidance Service, Inc.

Harris, S.M. 1995. Psychosocial development and black male masculinity: Implications for counseling economically disadvantaged African American male adolescents. *Journal of Counseling and Development*, 73(3), 279-287.

Heal, L.W. 1999. Are normalization and social role valorization limited by competence? In R. J. Flynn and R. A. Lemay (Eds.), *A quarter-century of normalization and social role valorization: Evolution and impact* (pp.197–218).Ottawa, ON:

HEATH Resource Center. 1999. *Financial Aid for Students with Disabilities*. ED430328. Washington, DC: Author.

Helson, J. C. 2OO9. Audio Visual Education. *Microsoft Encarta Premium.*

Hershenson, D. B. 1981 Work adjustment, disability and the three r's of vocational rehabilitation. A conceptual model Rehabilitation *Counseling Bulletin* 25.2: 91-97

Heward, W.L. 2006 Exceptional Children. *An introduction to special Education. 7th Edition.* Upper Saddle River, New Jessy.

Hilton, A. and Gerlach, K. 1997. Employment, preparation, and management of paraeducators: Challenges to appropriate service for students with developmental disabilities. *Education & Training in Mental Retardation & Developmental Disabilities* 32.2: 71-76

Hoban, C. F, Hoban, C. F & Zissman, S. B 1937 *Visualizing the curriculum.* Dryden Press New York.

Hochschild, J. F. 2003. Social Class in Public Schools. *Journal of Social Issues* 59(4): 821-840.

Hoff, E. 2003. The Specificity of Environmental Influence: Socioeconomic Status Affects Early Vocabulary Development Via Maternal Speech. *Child Development,* September/October 2003, Volume 74 (5): 1368–1378

Hoff-Ginsberg E. and Tardif T. 1995. Socioeconomic status and parenting. In *Handbook of Parenting*, ed. MH Bornstein, 4:161–87. Mahweh, NJ: Erlbaum

Hogan, R., and Blake, R. 1999. John Holland's vocational typology and personality theory. *Journal of Vocational Behavior, 55,* 41–56.

Hogan, R., and Roberts, B. W. 2000. A socioanalytic perspective on person/environment interaction. In W. B. Walsh, K. H. Craik, & R. H. Price (Eds.), *New directions in person– environment psychology*. Hillsdale, NJ: Erlbaum.

Holland, J. L. 1966. *The psychology of vocational choice: A theory of personality type and model environments.* Waltham, MA: Blaisdell.

Holland, J. L. 1992. *My Vocational Situation*. Palo Alto, C.A. Consulting Psychology press.

Holland, J.L. 1985. *Making vocational choices: A theory of vocational personalities and work environments (2nd ed*.). Englewood Cliffs, NJ: Prentice-Hall.

Holland, J.L. 1997. *Making vocational choices: A theory of vocational personalities and work environment (3rd ed.).* Odessa, FL: Psychological Assessment Resources, Inc.

Holland, J.L., and Gottfredson, G.D. 1992. A study of the hexagonal model: An evaluation (or perils of stalking the perfect hexagon). *Journal of vocational behavior*, 40, 158-170.

Holland. J. 1997. Marking vocational choices: *A theory of vocational personalities and work environments* (3rd ed). Odessa, FL. Psychological Assessment Resources

Hovenic, G. K. T. 1981. *Career Education and its Impact on Attitude and Vocational Choice of Selected Handicapped Students*. Thesis. United States International University.

Hughes, C., and Carter, E. W. 2000. *The transition handbook: Strategies high school teachers use that work!* Baltimore, MD: Paul H. Brookes Publishing.

Instructional Strategy Online, 2009. Explicit instruction http://www.instructional strategy online.org

Iroegbu, V. I. 2006. *The effects of modeling and picture-based instructional strategies on primary school pupils learning outcomes in English language*. Unpublished Ph.D Thesis. University of Ibadan.

Jeynes, W. H. 2002. Examining the effects of parental absence on the academic achievement of adolescents: the challenge of controlling for family income. *Journal of Family and Economic Issues* 23 (2).

Jones, B. F Pierce, J. and Hunter 1989 Teaching students to construct graphic representations. Educ. Leadership, 46(4): 20-25.

Kanchier, C. 1990. Career education for adults with mental retardation. *Journal of Employment Counseling, 27,* 23–36.

Karp, K. S., and Voltz, D. L. 2000. Weaving mathematical instructional strategies into inclusive settings. *Intervention in School and Clinic, 35,* 206–215.

Katz, A. 1970. Self-help organizations and volunteer participation in social welfare. *Social Work* 15: 51-60.

Katz, M. 1971. *Class, bureaucracy, and schools*. New York: Praeger Publisher

Kemika, O. G. 1995. *Theories and Practices of Career Development in Nigeria*. Hennimal

Kerchkoff, A.C., and Campbell, R.T. 1977. Race and social status differences in the explanation of educational ambition. *Social Forces*, 53(3), 701-714.

Kerka, S. 2010. Parenting and Career Development. Educational Resource Information Center (U.S. Department of Education) *http://www.education.com/articles/eric*

Kerlinger, F.N and Lee, H.B; 2000. *Foundations of behavioural research*. Wardsworth Publishers. USA.

Kiernan, W. and Stark, J.A. 1986. *Pathways to employment of adults with developmental disabilities*. Baltimore: Paul H. Brookes.

Kirk, S. A., Karnes, M. B., and Kirk, W. D. 1955. You and your retarded child. New York: Macmillan.

Koller, W., Richardson, S. A. and Katz, M. 1984. The prevalence of mild mental retardation in the adult years. *J. Ment. Defic. Res*., 28: 101-107.

Kozma, R. B. 2001. Counterpoint theory of "learning with media." In R. E. Clark (Ed.), *Learning from media: Arguments, analysis, and evidence.* 137-178. Greenwich, CT: Information Age Publishing Inc.

110

Kroesbergen, E. H., and Van Luit, J. E. H. 2003. Mathematical interventions for children with special educational needs. *Remedial and Special Education, 24,* 97–114.

Krumboltz, J. D., and Hamel, D. A. 1979. *Guide to career decision-making skills* New York: College Entrance Examination Board.

Krumboltz. J. and Worthington, R. 1999. The school-to-work transition from a learning theory perspective. *Career Development Quarterly,* 312-325

Kuhlman, F. 1941. Definition of mental deficiency. American Journal of Mental Deficiency, 46, 206-213.

Lankard, B. A. 1996. Job Training versus Career Development: What Is Voc Ed's Role? *ERIC Digest*. *http://eric.hoagiesgifted*.org/

Lara-Cinisomo, S., Pebley, A.R. Vaiana, M.E., Maggio, E. Berends, M. and Lucas, S. (2004). *A Matter of Class: Educational Achievement Reflects Family Background more than Ethnicity or Immigration.* RAND Corporation: Santa Monica, Ca.

Lasater, M. W. and Brady, M. P. 1995. Effects of video self-modeling and feedback on task fluency: A home-based intervention. *Education and Treatment of Children, 18*, 389-407.

Lee, C.L. 1984. An investigation of the psychological variables in the occupational aspirations and expectations of rural black and white adolescents: Implication for vocational education. *Journal of Research and Development in Education*, 17(3), 28-440.

Lent, R. W., Brown, S. D., and Hackett, G. 1996. Career development from a social cognitive perspective. In D.Brown, L. Brooks, & Associates, *Career Choice and Development* 3rd ed. San Francisco: Jossey-Bass. 373–421.
……………1994. Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of vocational behavior*, 45, 79-122.

Lent, R. W., Brown, S. D., Nota, L., and Soresi, S. 2003. Testing social cognitive interest and choice hypotheses across Holland types in Italian high school students. *Journal of Vocational Behavior, 62*, 101-118.

Levie, W. H, and Dickie, K. E 1973. The analysis and application of media. In: Travers R. (ed.) *The Second Hand book on Teaching*. Rand-McNally, Chicago.

Levinson, E. M., Peterson, M., and Elston, R. 1994.Vocational counseling with persons with mental retardation. In D. C. Strohmer and T. H. Prout (Eds.), *Counseling and psychotherapy with persons with mental retardation and borderline intelligence* (pp. 257–305). Brandon,VT: Clinical Psychology Publishers.

Maccini, P., and Gagnon, J. C. 2000. Best practices for teaching mathematics to secondary students with special needs. *Focus on Exceptional Children, 32,* 1–22.

Majoribanks, K. 1996. Family Learning Environments as Students Outcomes: : A Review. *Journal of Comparative Family Studies* 27(2): 373-394.

Martin, J. E., Marshall, L. H., and Maxson, L. L. 1993. Transition policy: Infusing selfdetermination and self-advocacy into transition programs. *Career Development for Exceptional Individuals*, 16, 53-61.

Mayer, R. and Gallini J. (1990) When is an illustration worth ten thousand words. *J. Educ. Psychol.* 82(4) 715-26

Mba, P. O. 1995. *Fundamentals of Special Education and Vocational Rehabilitation.* Codat Publications Ibadan.

McCall, R. B. 1981. Nature-nurture and the two realms of development: a proposed integrationwith respect to mental development. *Child Dev.* 52:1–12

McCrea, L.D., and Miller, S. L. 1999. *Connecting vocational preparation today with jobs of tomorrow: Employment longevity for persons with mental impairments.* (ERIC Document Reproduction Service No. ED430949)

McCrea, L.D., & Miller, S. L. 1999. *Connecting vocational preparation today with jobs of tomorrow: Employment longevity for persons with mental impairments.* (ERIC Document Reproduction Service No. ED430949)

McDonnell, J., Wilcox, B., and Hardman, M. 1991. *Secondary programs for students with developmental disabilities*. Boston: Allyn and Bacon.

McNeal, R. B. 2001. Differential effects of parental involvement on cognitive and behavioural outcomes by socio-economic status. *Journal of Socio-Economics* 30(2): 171.

Meir, S. 2000. Person Environment Congruence and Holland's Theory: A Review. *Journal of Vocational Behaviour.* 57, 137-187

Mitchell, L.K., and Krumboltz, J.D. 1996. Krumboltz's learning theory of career choice and counseling. In D. Brown, L. Brooks & Associates (Eds.), *Career choice and development (3rd ed.)*. San Francisco: Josey-Bass.

Mkpughe M.L. 1998. *The interaction of gender, location, and socio-economic status on students academic performance in Home Economics at the junior secondary school level*. Unpublished M.Ed Dissertation, DELSU, Abraka-Nigeria.

Montgomery, A. 1993. *Educational reforms and students at risk a review of the current state of the art*, U.S. Department of Education, office of Educational Research and Improvement, Office of Research.

Moran, R. R., McDermott, S. and Butkus, S. 2001. Getting a job, sustaining a job, and losing a job for persons with mental retardation. *Journal of Vocational Rehabilitation, 16,* 1–8.

Morgan, P.L., Farkas, G, Hillemeier, M.M and Maczuga S. 2009. Risk factors for learning-related behaviour problems at 24 months of age: population-based estimates. *Journal of Abnormal child psychology 37, 401-413*.

Morris, T.W., and Levinson, E. M. 1995. Relationship between intelligence and occupational adjustment and functioning: A literature review. *Journal of Counseling and Development, 73,* 503–514.

Nailos, M. A, Whitman, T. L. and Maxwell, S. E.1994. *The effects of three instructional procedures (verbal, visual, and verbal plus visual) with mentally retarded persons who varied in verbal and visual ability*. **http://www** springlink.com 18/3/10

National Career Development Association 1993. *Career development: A policy statement of the National Career Development Association board of directors.* Retrieved March 2, 2003, from http://www.ncda.org/

National Center for Education Statistics 2000 Drop outs: *Washington, DC: U.S. Government Printing Office, 200*

National Institutes of Health. (2009). *Mental retardation fact sheet.* Retrieved April 21, 2009, http://www.nih.gov/about/researchresultsforthepublic/MentalRetardation.pdf

National Organization on Disabilities. (1998). 1998 NOD/ Harris survey of Americans with disabilities. Washington DC: Louis Harris & Associates.

National Organization on Disability/Louis Harris and Associates, Inc. (N.O.D./Harris), 2000. N.O.D.*Harris Survey of Americans with Disabilities*

Ndukwu, P.N. 2002. *School and teacher factors as determinants of classroom material resources utilization in pre – primary schools in Lagos State.* Unpublished Ph.D Thesis, University of Ibadan, Ibadan.

New South Wales (NSW) Department of Education and Training 2010. Review of the Recent Literature on Socio-economic Status and Learning. Equity Programs and Distance Education Directorate DARLINGHURST NSW Australia. www.psp.nsw.edu.au

Norman, D. A. 2004. *Emotional design: Why we love (or hate) everyday things*. NY: Basic Books

North Central Regional Educational Laboratory 2010, Socioeconomic Status http://www.ncrel.org/info/copy

O'Neil, J.M., Meeker, C.H., and Borger, S.B. (1978). A developmental, preventive and corrective model to reduce sexism in the career planning of women. *Catalogue of Selected Documents in Psychoology 1978, 8(39),* MS#1684

O'Neil, J.M., Ohlde, C., Tollefson, N., & Piggot, T., (1980). *Factors, correlates, emotional barriers of affecting career decisions of college students.* Paper presented at the meeting of the 87th Annual Convention of the American Psychological Association, New York, NY.

Obani, T. C. 2003. Employment Issues and Persons with Special Needs. *Journal of Advocacy and Rehabilitation in Special Education* 1.1: 108 – 116

Office of Juvenile Justice and Delinquency Prevention (OJJP), 2002. *Fact Sheet: Juvenile Offenders in Residential Placement: 1997-1999.* Washington, D.C.: U.S. Department of Justice.

Okafor, P.N; 1999. *Effects of cooperative learning and conceptual change pedagogical strategies on students' achievement and attitude towards Chemistry.* Unpublished Ph.D Thesis, University of Ibadan, Ibadan.

Okorodudu, R. I. 2006. Education and Reorientation for Good Citizenship in Nation Building: Counselling Psychology Approach, Benin City: Ethiope Publishing Corporation.

Okoruwa, T.O; 2007.*Effects of conceptual change and enhanced explicit teaching strategies on learning outcomes in primary science in Ibada, Nigeria.* Unpublished Ph.D Thesis, University of Ibadan, Ibadan.

Okoye, N.S. 2009. *The effect of gender, socio-economic status and school location on students performance in Nigerian Integrated Science*. FindArticles / Reference / Education / Spring, 2009

Orisini, R., A. 1974. *Career Attitude Development and the Educable Mentally Retarded Students.* Unpublished Ph.D dissertation, Ohio State University.

Osipow, S.H 1990. Convergence in theories of career choice and development:Review and prospect. *Journal of vocational behavior*, 36, 122-131.

Otto, L.B. 1989. *How to help your child choose a career.* Florida: State Department of Education. ERIC Document Reproduction Services no. 336 506

Oyefara, L.J. 2005. *The Socio-Economic Consequences Of Adolescent Child Bearing* in Osun State, Nigeria. An unpublished Ph.D. Thesis, University of Ibadan, Ibadan.

Oyewumi, A. M. 2003. Effects of Teacher-Directed Instructional Strategies on Career Decision-Making Skills of Adolescents with Hearing Impairment in Oyo State Nigeria. An unpublished Ph.D. Thesis, University of Ibadan, Ibadan

Parent Advocacy Coalition for Educational Rights, 2010. *Planning for transition: It's never too soon.* http://www. pacer.org./index.html 30/12/10

Parham, T.A., & Austin, L.A. 1994. Career development and African Americans: A contextual reappraisal using the nigrescence construct. *Journal of Vocational Behavior,* 44(2), 139-154.

Parsons, F. 1909. *Choosing a vocation.* Boston: Houghton Mifflin.

Pianta, R. C, Egeland B, Sroufe, L. A. 1990. Maternal stress and children's development: prediction of school outcomes and identification of protective factors. *Journal of Consulting and Clinical Psychology,* Vol 62(6) 215–35

Pierce, K.,McDermott, S., & Butkus, S. (2003). Predictors of job tenure for new hires with mental retardation. *Research in Developmental Disabilities, 24,* 369–380.

Platt, H. 2010. *Various uses of automation in teaching with mentally retarded.* http://www.eric ed.gov 18/3/10

Policy Research Brief, 1996. *Postschool outcomes and community adjustment of young adults with severe disabilities*. *Available* from the Institute on Residential and Community Living, University of Minnesota, 109 Patte Hall, 150 Pillsbury Dr. SE, Minneapolis, MN 55455.

Reading-free Vocational Interest Inventory (RFVII), 2000. *Inventory Booklet*. Elbern Publications Columbus, OH

Reid, P.M., & Bray, A. 1997. Paid work and intellectual disability. *Journal of Intellectual & Developmental Disability, 22*(2), 87–96.

Roe, A. 1956. *The psychology of occupations*. New York: Wiley.

Rosenberg, M. S, Westling, D. L. and McLeskey, J. 2010. *Mental Retardation and Parenting,; Primary Characteristics of Students with Intellectual Disabilities.* Pearson Allyn Bacon Prentice Hall.

Rosenshine, B. 1997. Advances in research on instruction. *Issues in educating students with disabilities* Eds. J.W. Lloyd, E.J. Kameenui and D. Chard 197-221.

Rosenshine, B.V. 1986. Synthesis of research on explicit teaching. *Educational Leadership* 43.7: 60-69. http://www.cast.org/publications/ncac/ncac_explicit.html\

Rosenthal, R and Rubin D. 1982. A Simple General Purpose Display of Magnitude of Experimental Effect. Journal of Educational Psychology, Vol 14, 166-169

Rothman, S. 2003. *The changing influence of socioeconomic status on student achievement: recent evidence from Australia*. Paper presented at the annual meeting of the American Education Research Association, Chicago

Rusch, F. R. 2008. Preparing adolescents for adult roles. In F. R. Rusch (Ed.), *Beyond high school: Preparing adolescents for tomorrow's challenges* (pp. 2–23). Columbus, OH: Pearson Merrill Prentice Hall.

Rusch, F. R. Hughes, C. Agran, M. Martin, J. E. and Johnson, J. R. 2009. New Transition Bridges to Adult Life toward Self-Directed Learning, Post-High School Placement, and Coordinated Support Constructing. *A Journal of the Hammill Institute on Disabilities* 32(1); 53-59 http://www.sagepublications.com

Rusch, L. DeStefano, J. Chadsey-Rusch, L. Phelps, & E. Szymanski 1992 Eds. *Transition from school to adult life* Sycamore, IL: Sycamore Publishing. 391-406.

Salomone, P. R. 1996. Career counseling and job placement: Theory and practice. *Work and disability: Issues and strategies in career development and job placement.* Ed. E. M. S. R. M. Parker Austin, TX: Pro-Ed. 365-420

Santrock J. W. 2004. *Child development* (10th ed.). New York: McGraw-Hill.

Seligman, L., L. Weinstock and E. N. Heflin 1991. "The career development of 10 year olds." Elementary School Guidance and Counseling 25: 172–181. **...**

Schmidt, J. J. 1999. *Counseling in the schools: Essential services and comprehensive programs* (3rd ed.). Boston: Allyn & Bacon

Schulenberg, J.E., Vondracek, F.W., and Crouter, A.C. 1984. The influence of the family on vocational development. *Journal of marriage and the family, 73,* 129-143

Schunk, D. 2000. *Learning Theories: An Educational Perspective.* Columbus, OH:

Seyfried, S. F. 1998. Academic achievement of African American pre-adolescents: The influence of teacher perceptions. *American Journal of Community Psychology,* 26 (3): 381-402.

Shapiro, E.J. and Goldberge, R. 1986. A comparison of group contingencies for increasing spelling performance among sixth grade students. School Psychology Review, 15 (4) 546-557

Sheerenberger, R. C. 1983. *A history of mental retardation.* Baltimore: Brookes Publishing Co.

Shevin, M., and Klein, N. 1985. The importance of choice making skills for students with severe disabilities. *Journal of the Association for Persons with Severe Handicaps, 9,* 159–166.

Shuell, T. 1996. *Teaching and Learning in a Classroom* Context: Handbook of Educational Psychology; New York, Macmillan

Sitlington, Patricia L., and Frank, Alan R. 1993. Dropouts with learning disabilities: What happens to them as young adults? Learning Disabilities Research and Practice, 8(4), 244-52.

Slooson, R. 1985. *Slooson's Intelligence Test (SIT) for Children and Adults.* Slosson Educational Publications. Inc. New York

Sowers, J., McLean, D. and Owens, C. 2002. Self-directed employment for people with developmental disabilities: Issues, characteristics, and illustrations. *Journal of Disability Policy Studies* 13.2: 96-103.

Sowers, J., Verdi, M., & Sheehan, M. 2007. Teaching job independence and flexibility to mentally retarded students through the use of a self-control package. *Journal of Applied Behaviour Analysis.* 18.1:81 -5 3 997700

Spokane, A. R., Meir, E. I., & Catalano, M. 2000. Person-environment congruence and Holland's theory: A review and reconsideration. *Journal of Vocational Behavior,57*, 137-187

Stock, S. Davies, D. M. and Wehmeyer, M. L. 2003. Enhancing independent time management and personal scheduling for individuals with mental retardation through use of a palmtop visual and audio prompting system. Mental Retardation, 40, 358-365.

Stock, S. E., & Davies, D. K. 1997. *MenuCoach: A Multimedia Menu Planning System that Allows Individuals with Mental Retardation to Independently Develop Nutritional Menus.* US Department of Education.

Strong Campbell Interest Inventory, 1927 *Journal of Counseling and Development, https://www.cpp.com/products/strong/strong_info.aspx*

Strong, E. K., Jr. 1943. *The vocational interests of men and women.* Stanford, CA: Stanford University Press.

Sulkes, S. B. (2006). *Mental retardation/intellectual disability.* Retrieved April 21, 2009, from http://www.merck.com/mmhe/sec23/ch285/ch285a.html

Super, D. E. 1957. *A Theory of Vocational Development.* American Psychologist.

……. 1981. A life-span, life-space approach to career development. *Journal of Vocational Behavior* 16, 282-298.

Swanson, H. L. (2001). Searching for the best model for instructing students with learning disabilities. *Focus on Exceptional Children, 34,* 1–15.

Szymanski, E. M., and Hanley-Maxwell, C. 1996. Career development of people with developmental disabilities: An ecological model. *Journal of Rehabilitation, 62,* 48–55.

………, Hershenson,D. B., Enright,M. S. and Ettinger, J. M. (1996). Career development theories, constructs, and research: Implications for people with

disabilities. In E. M. Szymanski & R. P. Parker (Eds.),*Work and disability: Issues and strategies in career development and job placement* (pp. 80–117). Austin, TX: PRO-ED.

………., Hanley-Maxwell, C. and Asselin, S.B. 1992. Systems interface: Vocational rehabilitation, special education, and vocational evaluation. *Transition from school to adult life: Models, linkages, issues* Eds. F.R. Rusch, L. Destefano, J. Chadsey-Rusch, L.A. Phelps, & E.M. Szymanski Sycamore, IL: Sycamore. 153-171.

Tammi, R. B. A and Dombeck, M. 2006. Useful Methods for Teaching Mentally Retarded Students. Mental Health Mental Retardation of Tarrant County http://www.mentalhelp.net/poc/view.doc.php

Teese, R. (2003). *Blueprint Funding reform*. A presentation to the Department of Education and Training, Victoria

Temple University Developmental Disabilities Center/UAP, 1990. Adult with Mental Retardation. http://www.thearc.org/

The ERIC Clearinghouse on Disabilities and Gifted Education (ERIC EC) 2010.

The ERIC Digest 2000 Life Skills for Students with Mental Retardation

The International Encyclopedia of Education, 1995 *Visual Instuctional Strategy* 2nd ed. .Ed Torsten Husen T Neville Postlethwaite.

Thompson, S. and Fleming, N. 2003. *Summing it up: Mathematics achievement in Australian schools in TIMSS 2002* (TIMSS Australia Monograph no. 6). ACER:

Tomlinson, S. & Evans, H. 1991. Gender, ethnicity, and college students' responses to

Trusty, J. 1996. Relationship of parental involvement in teens' career development to teens' attitudes, perceptions, and behavior. *Journal of Research and Development in Education,* 30, 65-69.

U.S. Department of Education (1999). National Center for Educational Statistics. Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes, NCES 1999-187, by Laura Horn and Jennifer Berktold. Project Officer: Larry Bobbitt. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Education. Office of Special Education Programs. (2006). Twenty-Third Annual Report to Congress on the Implementation of The Individuals with Disabilities Education Act. Washington, DC, US Government Printing Office.

U.S. Department of Labour. (1999) Report on the American workforce. Washington, D.C.: U.S. Government Printing Office.

U.S Census Bureau 1999. Bicentennial Edition: Historical Statistics of the United States, Colonial Times to 1970.

Victorian Department of Education and Training, (2003) *Framework for Reform*, Speech delivered by Lynne Kosky, Minister for Education and Training, 28th May, 2003.

Villemarette, J. 1975. "The efficacy of a Career Orientation Activity on the Vocational Adjustment of the Handicapped. Dissertation. University of New Orleans.

Vondracek, F. W., Lerner, R. M., & Schulenberg, J. E. 1986. *Career development: A life-span developmental approach*. Hillsdale, NJ: Lawrence Erlbaum.

Wadsworth, J., & Cocco, K. 2003. A new look at career development for persons with mental retardation. Career Convergence, 1. Retrieved from http://209.235.208.145/cgi-bin/WebSuite/tcsAssnWebSuite.pl?Action=DisplayTemplate&Page=AWS_NCDA_EMAG.html&AssnID=NCDA&DBCode= 130285

Watson, S. 2010. Mild Intellectual Disability http://specialed.about.com/od/handlingallbehaviortypes/a/MID.htm

Wehman, P., and Kregel, J. 1998. *More than a job: Securing satisfying careers for people with disabilities.* Baltimore: Paul Brookes Publishing.

Wehman, P., Sale, P, and Parent, W.S. 1992. *Supported employment: Strategies for integration of workers with disabilities*. Boston: Andover Medical.

Wehmeyer, M. L. 1993. Perceptual and psychological factors in career decision-making of adolescents with and without cognitive disabilities. *Cognitive Decision-Making, 1*6, 135-146.

Whitman, T. L., Hantula, D. A. and Spence, B. H. 1990. Current issues in behaviour modification with mentally retarded persons. *Handbook of behaviour modification with the mentally retarded.* Matson, J. L. Ed. New York: Plenum Press.

Whitney-Thomas, J., Shaw,D., Honey, K., and Butterworth, J. (1998). Building a future: A study of person-centered planning. *Journal of the Association for Persons with Severe Handicaps, 23,* 119–123.

William T. Grant Foundation Commission on Work, Family and Citizenship, Youth and America's Future, et al. *State and Communities on the Move: Policy Initiatives to Create a World Class Workforce*. Washington, DC: The William T. Grant Foundation, 1991.

Woolfolk, A. 2007. *Educational psychology* (10th ed.). Boston: Allyn and Bacon. *Copyright2003-2009 the Gale Group, Inc. All rights reserved.*

Yepsen, L. 1941. Defining mental deficiency. American Journal of Mental Deficiency, 46, 200-205.

Young, R. A., & Friesen, J. D. 1992. The intentions of parents in influencing the career development of their children. *Career Development Quarterly* 40: 198-207.

Zill, N. Moore K, Smith E, Stief T, Coiro M. 1995. The life circumstances and development of children in welfare families: a profile based on national survey data. In *Escape From Poverty: What Makes a Difference For Children?* ed. PL Chase-Lansdale, J Brooks-Gunn, 38–59. New York: Cambridge Univ. Press

Zill, N; Collins, M, West, J. and Hasken, E.G. 1995 School readiness and children's developmental status. *Eric Digest(online) .http//ceep.crc.uiuc.edu/eecearchive/digests/1995/http/211195.html*

APPENDIX 1

TREATMENT PACKAGE FOR EXPLICIT INSTRUCTIONAL STRATEGY

WEEK 1	**LESSON 1**
Topic:	Definition of Vocation, Occupation or Work
Duration:	35 Minutes
Instructional Materials:	Word Cards, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   i.   Define vocation or work.

   ii.   Differentiate between play and work

STEPS

Step I: The teacher introduces the lesson, and explains the concept of vocational education to the pupils (why do people work, why it is important that one should work, why is it important that every body in the society should be engage in one vocation or the other).

Step II: The teacher defines and explains to the pupils what vocation or work is all about.

Step III : The teacher assists the pupils to differentiate between work and play.

Step IV: The teacher explains the relationship between having a vocation and being independent and reasons why it is important to be independent

Evaluation: Pupils answer oral questions on the lesson; what is work or vocation? What is the difference between work and play? Are your parents working? What type of work are your parents doing?

Reinforcement: pupils who are able to answer the questions are clapped for.

WEEK 1	**LESSON 2**
Topic:	Importance of Work
Duration:	35 Minutes
Instructional Materials:	Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   i.   Explain the relationship between vocation and been independent

   ii. Mention different types of vocation they can do.

Step I: The teacher revises lesson on self-understanding and self-awareness.

Step II: The teacher shows the pupils different pictures of people who are productive members of the society and pictures of people who are not.

Step III: The teacher intimates the pupils about the world of work by showing them pictures of different types of vocation.

Step IV: The teacher explains the reason why everybody cannot do the same type of work.

Evaluation: Pupils answer oral questions on the lesson; why do people work? would you like to work and why?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 1	**LESSON 3**
Topic:	Self-Awareness
Duration:	35 Minutes
Instructional Materials:	Chalk Board, Word Cards

Behavioural Objectives:

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   i.   Mention different types of vocations they can do to be self sufficient in life.

   ii. Explain impotance of having information on different vocations.

STEPS

Step I The teacher revises the last lesson on the world of work.

Step II The teacher informs and shows the pupils different types of vocation they can do.

Step III The teacher shows the pupils' different available vocations they can do and which are also readily available in the society or their neighbourhood.

Step IV The teacher informs the pupils that it is possible for them to do one of the vocations if they desire and choice to learn it.

Evaluation: Pupils answer oral questions on the lesson; what kind of occupation do you know?

Is it possible to learn a vocation?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 2	**LESSON 1**
Topic:	Knowledge about the World of Work or Vocation
Duration:	35 Minutes
Instructional Materials:	Word Card, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i.   Know that a productive member of the society engage in a vocation.

ii.   That there are different types of vocation.

iii.   Not everybody can do certain vocation or work.

STEPS

Step I: The teacher revises lesson on self-understanding and self-awareness.

Step II: The teacher explains the importance of been a productive member of the society.

Step III: The teacher intimates the pupils about the world of work, mentioning different types of vocation.

Step IV: The teacher explains the reason why everybody cannot do the same type of work.

Evaluation: Pupils answer oral questions on the lesson; is it important to engage in a vocation? What kind of occupations do you know? Can everybody do the same type of occupation or vocation?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 2   **LESSON 2**

Topic: Information on Vocation

Duration: 35 Minutes

Instructional Materials: Chalk Board Word Card

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i.   Know different types of vocations they can do to be self sufficient in life.

ii.   Know that having information on different vocations will help in choosing a vocation.

STEPS

Step I: The teacher revises the last lesson on the world of work.

 Step II: The teacher informs the pupils about different type of vocations they can do.

Step III: The teacher explains to the pupils different available vocations they can do, which are readily available in the society or their neighbourhood.

Step IV: The teacher informs the pupils that it is possible for them to do one of the vocations if they learn and like it.

Evaluation: Pupils answer oral questions on the lesson; what kind of occupation do you know?

Is it possible to learn a vocation? Can you have a vocation?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 2	**LESSON 3**
Topic:	Vocational Requirement
Duration:	35 Minutes
Instructional Materials:	Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i. Describe importance of vocational requirements and everybody can not do the same type of vocation.

ii. Mention general requirements that must be met in a work place.

STEPS

Step I: The teacher revises the last lesson on information on vocation.

Step II: The teacher explains the importance of individual differences, everybody cannot do the same type of vocation. Every vocation has requirements for leaning and engaging in it (duration of learning, academic level required, materials needed in learning or doing the vocation etc).

Step III: The teacher explains to the pupils other necessary requirements before engaging in a vocation; interest (what you like doing most), self-concept (believing in yourself), abilities (intellectual, strength, physique) motivation etc as a lot do in choosing a vocation.

Step IV: The teacher informs the pupils about the importance of comportment, punctuality, good manners, courtesy, in learning and engaging in a vocation.

Evaluation: Pupils answer oral questions on the lesson; is it important for you to like or dislike a vocation before you choose it? Is there any learning you must do before you engage in a vocation? how should one behave at work?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 3	**LESSON 1**
Topic:	Types of Vocation (Mechanical; Automobile)
Duration:	35 Minutes
Instructional Materials:	Pictures, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i. Explain what is mechanical automobile

ii. Mention different types of automobile vocation.

   i.   List basic requirements for engaging in mechanical-automobile vocation.

STEPS

Step I: The teacher revises the last lesson on vocational requirements.

Step II: The teacher explains to the pupils that one of the vocations they can do is auto-mechanic work and what it entails (repairing of cars and its accessories).

Step III: The teacher shows the pupils different pictures of vocations under mechanical – automobile they can engaged in such as repairs, panel beating, car painting, vulcanizing etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that the vocation be learnt in an auto-mechanic workshop and the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by automotive vocation? Mention one of the vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 3	**LESSON 2**
Topic:	Types of Vocation (Building Trades)
Duration:	35 Minutes
Instructional Materials:	Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

  i. Explain building trades vocation

  ii. Mention different types of vocations building trades.

  i. List basic requirements for learning building trades vocations.

STEPS

Step I: The teacher revises the last lesson on mechanical – automobile vocations.

Step II: The teacher shows the pupils another vocation they can engage in, building-trades and what it entails (building and repairing houses).

Step III: The teacher lists different vocations under building trades the pupils can do such as bricklaying, carpentering, plumbing, house painting etc.

Step IV: The teacher mentions and explains the requirements needed in learning and engaging in these trades.

Step V: The teacher informs the pupils about the possibility of learning the vocation as an apprentice and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by building trades? Mention one of the vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 3   **LESSON 3**

Topic: Types of Vocation (Outdoor; Animal Care)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   i. Definet outdoor vocations

   ii. Describe different types of animal care vocations

   iii. Mention necessary requirements for learning animal husbandry.

STEPS

Step I: The teacher revises the last lesson on building trades.

Step II: The teacher explains and shows the pupils another vocation they can engage in, animal husbandry and what it entails (raising caring for different types of domestic animals).

Step III: The teacher lists and shows the pupils different vocations under animal husbandry such as snail keeping, fishery, piggery, poultry, goat/cow/sheep rearing, horse grooming, grass cutter rearing, bee keeping etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

 Step V: The teacher informs the pupils that they can learn building trade as an apprentice and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by animal care? Mention one vocation under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 4   **LESSON 1**

Topic: Types of Vocation (Outdoor; Farming/horticulture)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   i. Define farming/horticulture

ii. Mention different types of farming/horticulture of vocation.

iii. List basic requirements for learning farming /horticulture vocation.

STEPS

Step I: The teacher revises the last lesson on animal care.

Step II: The teacher explains to the pupils that another vocation they can engage in is farming/horticulture and what the vocation entail (tending the soil, planting and harvesting crops, planting flowers and keeping garden).

Step III: The teacher lists and shows the pupils different vocations under farming/horticulture that the pupils can engage in such as peasant farming, mechanised farming, cash crop farming, landscaping, gardening, etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn it as an apprentice and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by farming/horticulture? Mention one vocation under it?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 4   **LESSON 2**

Topic: Types of Vocation (Artisan)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: Pictures of different artisan at work, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i. Define artisan

ii. Mention different types of vocations under it.

iii. List requirements associated with artisan.

STEPS

Step I: The teacher revises the last lesson on farming and horticulture.

Step II: The teacher explains to the pupils that another type of vocations they can engage in is artisan (making of different kinds of things, repairing things, beautifying people, etc).

Step III: The teacher lists and shows pupils different vocations under artisan: barbing, hair dressing, cobbling, cane work, tye and dye etc.

Step IV: The teacher mentions and explains the requirements needed for learning and doing these type of vocations.

Step V: The teacher informs the pupils that they can learn it as an apprentice or in a workshop and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by artisan vocation? Mention vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 4	**LESSON 3**
Topic:	Types of Vocation (Artisan Continues)
Duration:	35 Minutes
Instructional Materials:	Chalk Board

Behavioural Objectives:

At the end of the lesson, pupils should be able to:

    i. Define artisan

    ii. Mention different types of vocations in artisan.

    iii. List different requirements in learning artisan vocations.

STEPS

Step I: The teacher revises the last lesson on artisan.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is artisan (skilled work, making things with ones hand etc).

Step III: The teacher lists and shows the pupils different vocations under artisan (making things such as basket weaving, cloth weaving, broom making, mat making, photography, tie and dye etc).

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn it as an apprentice and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by artisan vocation? Mention vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 5   **LESSON 1**

Topic: Types of Vocation (Artisan II: Materials Handling)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   i.   Define artisan (materials handling)

   ii.   Mention different types of vocations associated with artisan (material handling).

   iii. List requirements in learning and engaging in artisan material handling.

STEPS

Step I: The teacher revises the last lesson on artisans (basket, cloth weaving, broom or mat making etc).

Step II: The teacher explains to the pupils that one of the vocations they can engage in is material handling and what it entails (making of different kinds of things).

Step III: The teacher lists and shows the pupils different vocations under materials handling that the pupils can engage in such as dress making, tie and dye, candle making, soap making, chalk making, nylon making etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn it as an apprentice and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by materials handling vocation? Mention vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 5   **LESSON 2**

Topic: Types of Vocation (Food Services)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   i.   Define Food services vocations.

   ii.   Mention vocation associated with food services.

STEPS

Step I: The teacher revises the last lesson on artisan (materials handling).

Step II: The teacher explains to the pupils that one of the vocations they can engage in is food services (making, serving and selling of different kinds of food and drinks).

Step III: The teacher lists and shows the pupils different vocations under food services that the pupils can engage in such as in-door and out-door catering services, running a cafeteria working or having a bakery, water packaging, snacks etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn it as an apprentice or on job training workshop and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by food services vocation? Mention vocations under it?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 5   **LESSON 3**

Topic: Types of Vocation (Housekeeping)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

  i.   Explain what is housekeeping work

  ii.   Mention different types of housekeeping jobs.

STEPS

Step I: The teacher revises the last lesson on food services.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is housekeeping (keeping the house, doing household chores, child mending).

Step III: The teacher lists and shows the pupils different vocations under housekeeping that the pupils can engage in such as nanny work, child mending, nursery work, butler work etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn these vocations as an apprentice and that these services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by housekeeping vocation? Mention vocations under it?

REINFORCEMENT: Pupils who are able to answer the question are clapped for.

WEEK 6   **LESSON 1**

Topic: Types of Vocation (Clerical Services)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i.   Explain what is clerical services

ii. Itemise different vocations associated with clerical services.

iii. Mention necessary requirements in learning these vocations.

 STEPS

Step I: The teacher revises the last lesson on housekeeping.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is patient care and clerical services what it entails (taking care of people; old people, sick people, invalid, abandoned children, working as a shoping assistant, office assistant etc).

Step III: The teacher lists and shows pupils different vocations under patient care that the pupils can engage in such as working in hospital, offices, stores, orphanage, old peoples' home, motherless baby home etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

 Step V: The teacher informs the pupils that they can learn these vocations on the job and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by patient care? Mention some of the works you can do in patient care?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 6   **LESSON 2**

Topic: Types of Vocation (Social Services)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i.   Define social services

    ii. Mention different types of vocations associated with it.

    iii. Explain necessary requirements in rendering social services.

STEPS

Step I: The teacher revises the last lesson on patient care.

Step II: The teacher explains to the pupils that one of the services they can render is social services and what it entails (voluntary service during disaster such fire outbreak, flood earthquake).

Step III: The teacher shows the pupils different services that the pupils can render in such situations such as giving relief materials, making affected people comfortable etc.

Step IV: The teacher mentions and explains the requirements needed in rendering these services.

Step V: The teacher informs the pupils that they can be involved through training, workshop, or through involvement in non governmental organisations (NGO).

Evaluation: Pupils answer oral questions on the lesson; what is a social service? Mention some of the services that can be rendered in social services?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 6   **LESSON 3**

Topic: Types of Vocation (Casual)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    i. Explain what is casual or part-time work

    ii. Mention different types of jobs under it.

    iii. List the necessary requirements in learning these jobs.

STEPS

Step I: The teacher revises the last lesson on Social services.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is casual work and what it entails (it's a temporary vocation or job, it's flexible; it can involve variety of work).

Step III: The teacher lists different types of jobs under casual work that the pupils can engage in such as nanny work, child mending, animal care, distributing newspapers, working in lift etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn these vocations as an apprentice or in a workshop; on the job training and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by casual work? Mention some of the jobs under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 7	LESSON 1

Topic: Types of Vocation (Others; Laundry Services)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives:

  i.   Pupils should be able to mention different types of other vocations.

  ii. Pupils should be able to explain the requirements for learning laundry and other related services.

STEPS

Step I : The teacher revises the last lesson on casual work.

Step II: The teacher explains to the pupils other vocations they can engage such laundry and related services and what it entails (washing and ironing clothes, washing cars, rug and household equipment).

Step III: The teacher shows the pupils different types of work under laundry services that the pupils can engage in such as household cleaning of rugs, carpet, furniture etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these jobs.

Step V: The teacher informs the pupils that they can learn these vocations as an apprentice or on job training and that the services are available in their neighbourhood.

Evaluation

Pupils answer oral questions on the lesson; what do you understand by laundry services? Mention vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 7   **LESSON 2**

Topic: Types of Vocation (Waste Management;

                Collecting Waste   and Recycling Materials)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives:

i.   Pupils should be able to define what waste and recycling materials collection are and   mention different types of vocations under it.

ii. Pupils should be able to mention the requirements for learning and engaging these types of wok.

Step I: The teacher revises the last lesson on laundry services.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is collecting waste and recycling materials and what it entails (collecting refuse, waste and other materials and disposing them properly, collecting recycling materials).

Step III: The teacher lists and shows the pupils different vocations under collections of waste and recycling materials that the pupils can engage in such as collection of waste, recycling materials and others etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn these vocations as an apprentice or on job training and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by waste collection services? Mention vocations under it?

Reinforcement

Pupils who are able to answer the question are clapped for.

WEEK 7   **LESSON 3**

Topic: Types of Vocation (Delivery Services)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives:

iii. Pupils should be able to define what waste and recycling materials collection are and   mention different types of vocations under it.

iv. Pupils should be able to mention the requirements for learning and engaging these types of wok.

Step I: The teacher revises the last lesson on laundry services.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is collecting waste and recycling materials and what it entails (collecting refuse, waste and other materials and disposing them properly, collecting recycling materials).

Step III: The teacher lists and shows the pupils different vocations under collections of waste and recycling materials that the pupils can engage in such as collection of waste, recycling materials and others etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn these vocations as an apprentice or on job training and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by weaving vocation? Mention vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 8   **LESSON 1**

Topic: Vocational Choice (How)

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

i.   Define delivery service vocation.

ii. Mention different vocation associated with delivery services.

iii. Itemize the requirement for this vocation

STEPS

Step I: The teacher revises the last lesson on waste management.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is delivery services and what it entails (delivery of goods and materials).

Step III: The teacher lists different vocations under delivery services that the pupils can engage in such as goods delivery, produce delivery, mail delivery etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn these vocations as an apprentice or on job learning and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; mention some of the things you must possess in other for you to choose a vocation?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 8	**LESSON 2**
Topic:	Vocational Choice (When)
Duration:	35 Minutes
Instructional Materials:	Chalk Board

Behavioural Objectives:

    i.   Pupils should be able to explain the impotance of vocational interest

    ii.   Pupils should be able to relate vocational interest to vocational choice

    iii. Pupils should be able to explain when vocational can made

STEPS

Step I: The teacher revises the last lesson on how to make vocational choice.

Step II: The teacher explains to the pupils that it is paramount for them to be independent and they can only achieve these by having a vocation.

Step III: The teacher explains to the pupils the importance of making realistic vocational choice before transiting to the larger society.

Step IV: The teacher explains to the importance of proper consideration of personal interest, ability, home background, sex etc before making vocational choice.

Step V: The teacher reminds the pupils of different vocations they had learnt by showing them pictures of these vocations

Evaluation: Pupils answer oral questions on the lesson; when is the appropriate time to make vocational choice?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 8   **LESSON 3**

Topic: Vocational Choice Making

Duration: 35 Minutes

Instructional Materials: Chalk Board

Behavioural Objectives: At the end of the lesson:

i.   Pupils will be able to explain the importance of making vocational choice.

ii.   Pupils will be able to mention the process of vocational choice making

iii. Pupils will be able to make vocational choice

STEPS

Step I: The teacher revises the last lesson on how and when to develop vocational interest and making realistic vocational choice.

Step II: The teacher explains to the pupils the importance of vocational choice making.

Step III: The teacher takes the pupils through the process of vocational choice making

Step IV: The teacher explains further that it is possible for them to make vocational choice based on their interest.

Step V: The teacher asks the pupils to make a vocational choice by asking them individual what type of vocation they want to do.

Evaluation: Pupils answer oral questions on the lesson; can you make vocational choice? How do you make vocational choice? What is your choice?

Reinforcement: Pupils who are able to answer the questions are clapped for.

TREATMENT PACKAGE FOR VISUAL INSTRUCTIONAL STRATEGY

WEEK 1   **LESSON 1**

Topic: Definition of Vocation, Occupation or Work

Duration: 35 Minutes

Instructional Materials: Picture Cards

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iii.   Define vocation or work.

    iv.   Differentiate between play and work

STEPS

Step I: The teacher introduces the lesson, by defining and explaining the concept of vocation, work, job and play to the pupils.

Step II: The teacher shows the pupils pictures of people doing different types of vocation, work and play.

Step III: The teacher assists the pupils to differentiate between work and play.

Step IV The teacher explains why it is important to work and not to play.

Evaluation: Pupils answer oral questions on the lesson; what is work or vocation? What is the difference between work and play? Are your parents working? What type of work are your parents doing?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 1   **LESSON 2**

Topic: Importance of Work

Duration: 35 Minutes

Instructional Materials: Picture, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    i.   Describe the relevance of work to an individual and to the society at large.

    ii.   Explain why vocation or work is important.

STEPS

Step I: The teacher revises the definition of vocation and work, explains the relationship between work and been independent.

Step II: The teacher explains reasons why people work and not play.

Step III: The teacher describes the importance of work or vocation and its relationship to everyday living.

Step IV: The teacher explains the consequences of not been independent i.e. not having a vocation or work.

Evaluation: Pupils answer oral questions on the lesson; why do people work? would you like to work and why?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 1   **LESSON   3**
Topic: Self-Awareness
Duration: 35 Minutes
Instructional Materials: Pictures, Chalk Board
Behavioural Objectives: At the end of the lesson, pupils should be able to:

      i.   Understand that each person is unique in his or her own way and different from others.

     ii.   Describe individual differences; areas of strength and weakness.

STEPS

Step I: The teacher revises the lesson on definition of work and importance of been independent in life, as well as the relationship between work and everyday living.

Step II: : The teacher explains the concepts of individual differences (tall, short, fat, slim, light, dark etc).

Step III: The teacher further expanciates individual uniqueness in relation to strength and weaknesses.

Step IV: The teacher explains to the pupils the importance of self-understanding and self-awareness in relation to the vocation or work an individual choice to do.

Evaluation: Pupils answer oral questions on the lesson; what are the things you love to do? do you think you can work?

Reinforcement

    Pupils who are able to answer the questions are clapped for.

WEEK 2   **LESSON 1**
Topic: Knowledge about the World of Work or Vocation
Duration: 35 Minutes
Instructional Materials: Picture, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iii. Explain the relationship between vocation and been independent

    iv. Mention different types of vocation they can do.

STEPS

Step I: The teacher revises lesson on self-understanding and self-awareness.

Step II: The teacher shows the pupils different pictures of people who are productive members of the society and pictures of people who are not.

Step III: The teacher intimates the pupils about the world of work by showing them pictures of different types of vocation.

Step IV: The teacher explains the reason why everybody cannot do the same type of work.

Evaluation: Pupils answer oral questions on the lesson; is it important to engage in a vocation? What kind of occupations do you know? Can everybody do the same type of occupation or vocation?

Reinforcement Pupils who are able to answer the questions are clapped for.

WEEK 2   **LESSON 2**

Topic: Information on Vocation

Duration: 35 Minutes

Instructional Materials: Pictures of different vocation, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iii. Mention different types of vocations they can do to be self sufficient in life.

    iv. Explain impotance of having information on different vocations.

STEPS

Step I: The teacher revises the last lesson on the world of work.

 Step II: The teacher informs and shows the pupils different types of vocation they can do.

Step III: The teacher shows the pupils' different available vocations they can do and which are also readily available in the society or their neighbourhood.

Step IV: The teacher informs the pupils that it is possible for them to do one of the vocations if they desire and choice to learn it.

Evaluation: Pupils answer oral questions on the lesson; what kind of occupation do you know?

 Is it possible to learn a vocation?

Reinforcement Pupils who are able to answer the questions are clapped for.

WEEK 2   **LESSON 3**

Topic: Vocational Requirement

Duration: 35 Minutes

Instructional Materials: Concrete objects. Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iii. Describe importance of vocational requirements and everybody can not do the same type of vocation.

    iv. Mention general requirements that must be met in a work place.

STEPS

Step I: The teacher revises the last lesson on information on vocation.

Step II: The teacher explains the importance of individual differences, everybody cannot do the same type of vocation. Every vocation has requirements for leaning and engaging in it (duration of learning, academic level required, materials needed in learning or doing the vocation etc).

Step III: The teacher explains to the pupils other necessary requirements before engaging in a vocation; interest (what you like doing most), self-concept (believing in yourself), abilities (intellectual, strength, physique) motivation etc as a lot do in choosing a vocation.

Step IV: The teacher informs the pupils about the importance of comportment, punctuality, good manners, courtesy, in learning and engaging in a vocation.

Evaluation: Pupils answer oral questions on the lesson; is it important for you to like or dislike a vocation before you choose it? Is there any learning you must do before you engage in a vocation? how should one behave at work?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 3   **LESSON 1**

Topic: Types of Vocation (Mechanical; Automobile)

Duration: 35 Minutes

Instructional Materials: Pictures, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iii. Explain what is mechanical automobile

    iv. Mention different types of automobile vocation.

ii.   List basic requirements for engaging in mechanical-automobile vocation.

STEPS

Step I: The teacher revises the last lesson on vocational requirements.

Step II: The teacher explains to the pupils that one of the vocations they can do is auto-mechanic work and what it entails (repairing of cars and its accessories).

Step III: The teacher shows the pupils different pictures of vocations under mechanical – automobile they can engaged in such as repairs, panel beating, car painting, vulcanizing etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that the vocation be learnt in an auto-mechanic workshop and the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by automobile vocation? Mention one of the vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 3   **LESSON 2**

Topic: Types of Vocation (Building Trades)

Duration: 35 Minutes

Instructional Materials: Pictures of different building trade

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iii. Explain building trades vocation

    iv. Mention different types of vocations building trades.

    ii.   List basic requirements for learning building trades vocations.

STEPS

Step I: The teacher revises the last lesson on mechanical – automobile vocations.

Step II: The teacher shows the pupils another vocation they can engage in, building-trades and what it entails (building and repairing houses).

Step III: The teacher lists different vocations under building trades the pupils can do such as bricklaying, carpentering, plumbing, house painting etc.

Step IV: The teacher mentions and explains the requirements needed in learning and engaging in these trades.

142

Step V: The teacher informs the pupils about the possibility of learning the vocation as an apprentice and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by building trades? Mention one of the vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 3   **LESSON 3**

Topic: Types of Vocation (Outdoor; Animal Care)

Duration: 35 Minutes

Instructional Materials: Pictures of people perfoming outdoor work

Behavioural Objectives: At the end of the lesson, pupils should be able to:

   iv. Definet outdoor vocations

   v. Describe different types of animal care vocations

   vi. Mention necessary requirements for learning animal husbandry.

STEPS

Step I: The teacher revises the last lesson on building trades.

Step II: The teacher explains and shows the pupils another vocation they can engage in, animal husbandry and what it entails (raising caring for different types of domestic animals).

Step III: The teacher lists and shows the pupils different vocations under animal husbandry such as snail keeping, fishery, piggery, poultry, goat/cow/sheep rearing, horse grooming, grass cutter rearing, bee keeping etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn building trade as an apprentice and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by animal care? Mention one vocation under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 4   **LESSON 1**

Topic: Types of Vocation (Outdoor; Farming/horticulture)

Duration: 35 Minutes

Instructional Materials: Pictures of a farm, concrete objects: farming tools

Behavioural Objectives: At the end of the lesson, pupils should be able to:

  iv. Define farming/horticulture

  v. Mention different types of farming/horticulture of vocation.

  vi. List basic requirements for learning farming /horticulture vocation.

 STEPS

Step I: The teacher revises the last lesson on animal care.

Step II: The teacher explains to the pupils that another vocation they can engage in is farming/horticulture and what the vocation entail (tending the soil, planting and harvesting crops, planting flowers and keeping garden).

Step III: The teacher lists and shows the pupils different vocations under farming/horticulture that the pupils can engage in such as peasant farming, mechanised farming, cash crop farming, landscaping, gardening, etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

 Step V: The teacher informs the pupils that they can learn it as an apprentice and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by farming/horticulture? Mention one vocation under it?

Reinforcement: Pupils who are able to answer the questions are clapped for.

WEEK 4   **LESSON 2**

Topic: Types of Vocation (Artisan)

Duration: 35 Minutes

Instructional Materials: Pictures of different artisan at work, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

  iv. Define artisan

  v. Mention different types of vocations under it.

  vi. List requirements associated with artisan.

 STEPS

Step I: The teacher revises the last lesson on farming and horticulture.

Step II: The teacher explains to the pupils that another type of vocations they can engage in is artisan (making of different kinds of things, repairing things, beautifying people, etc).

Step III: The teacher lists and shows pupils different vocations under artisan: barbing, hair dressing, cobbling, cane work, tye and dye etc.

Step IV: The teacher mentions and explains the requirements needed for learning and doing these type of vocations.

Step V: The teacher informs the pupils that they can learn it as an apprentice or in a workshop and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by artisan vocation? Mention vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 4	**LESSON 3**
Topic:	Types of Vocation (Artisan Continues)
Duration:	35 Minutes
Instructional Materials:	Pictures, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iv. Define artisan

    v. Mention different types of vocations in artisan.

    vi. List different requirements in learning artisan vocations.

STEPS

Step I: The teacher revises the last lesson on artisan.

Step II: The teacher explains to the pupils that one of the vocations they can engage in is artisan (skilled work, making things with ones hand etc).

Step III: The teacher lists and shows the pupils different vocations under artisan (making things such as basket weaving, cloth weaving, broom making, mat making, photography, tie and dye etc.

Step IV: The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V: The teacher informs the pupils that they can learn it as an apprentice and that the services are available in their neighbourhood.

Evaluation: Pupils answer oral questions on the lesson; what do you understand by artisan vocation? Mention vocations under it?

Reinforcement: Pupils who are able to answer the question are clapped for.

WEEK 5   LESSON 1

Topic: Types of Vocation (Artisan II: Materials Handling)

Duration: 35 Minutes

Instructional Materials: Pictures, Chalk Board

Behavioural Objectives: At the end of the lesson, pupils should be able to:

 iv. Define artisan (materials handling)

 v. Mention different types of vocations associated with artisan (material handling).

 vi. List requirements in learning and engaging in artisan material handling.

STEPS

Step I The teacher revises the last lesson on artisans (basket, cloth weaving, broom or mat making etc).

Step II The teacher explains to the pupils that one of the vocations they can engage in is material handling and what it entails (making of different kinds of things).

Step III The teacher lists and shows the pupils different vocations under materials handling that the pupils can engage in such as dress making, tie and dye, candle making, soap making, chalk making, nylon making etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V The teacher informs the pupils that they can learn it as an apprentice and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by materials handling vocation? Mention vocations under it?

Reinforcement Pupils who are able to answer the question are clapped for.

WEEK 5   LESSON 2

Topic: Types of Vocation (Food Services)

Duration: 35 Minutes

Instructional Materials: Pictures of different food services

Behavioural Objectives: At the end of the lesson, pupils should be able to:

 iii. Define Food services vocations.

 iv. Mention vocation associated with food services.

STEPS

Step I The teacher revises the last lesson on artisan (materials handling).

Step II The teacher explains to the pupils that one of the vocations they can engage in is food services (making, serving and selling of different kinds of food and drinks).

Step III The teacher lists and shows the pupils different vocations under food services that the pupils can engage in such as in-door and out-door catering services, running a cafeteria working or having a bakery, water packaging, snacks   etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these vocations.

 Step V The teacher informs the pupils that they can learn it as an apprentice or on job training workshop and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by food services vocation? Mention vocations under it?

Reinforcement Pupils who are able to answer the questions are clapped for.

WEEK 5	**LESSON 3**
Topic:	Types of Vocation (Housekeeping)
Duration:	35 Minutes
Instructional Materials:	Pictures different housekeeping work

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iii.   Explain what is housekeeping work

    iv.   Mention different types of housekeeping jobs.

 STEPS

Step I The teacher revises the last lesson on food services.

Step II The teacher explains to the pupils that one of the vocations they can engage in is housekeeping (keeping the house, doing household chores, child mending).

Step III The teacher lists and shows the pupils different vocations under housekeeping that the pupils can engage in such as nanny work, child mending, nursery work, butler work etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these vocations.

 Step V The teacher informs the pupils that they can learn these vocations as an apprentice and that these services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by housekeeping vocation? Mention vocations under it?

Reinforcement Pupils who are able to answer the question are clapped for.

WEEK 6   **LESSON 1**

Topic: Types of Vocation (Clerical services)

Duration: 35 Minutes

Instructional Materials: Pictures of different types of clerical services

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iv. Explain what is clerical services

    v. Itemise different vocations associated with clerical services.

    vi. Mention necessary requirements in learning these vocations.

STEPS

Step I The teacher revises the last lesson on housekeeping.

Step II The teacher explains to the pupils that one of the vocations they can engage in is patient care and clerical services what it entails (taking care of people; old people, sick people, invalid, abandoned children, working as a shoping assistant, office assistant etc).

Step III The teacher lists and shows pupils different vocations under patient care that the pupils can engage in such as working in hospital, offices, stores orphanage, old peoples' home, motherless baby home etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V The teacher informs the pupils that they can learn these vocations on the job and that the services are available in their neighbourhood.

Evaluation

    Pupils answer oral questions on the lesson; what do you understand by patient care? Mention some of the works you can do in patient care?

Reinforcement

    Pupils who are able to answer the question are clapped for.

WEEK 6   **LESSON 2**

Topic: Types of Vocation (Social Services)

Duration: 35 Minutes

Instructional Materials: Pictures of different vocation on social services

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iv. Define social services

v.   Mention different types of vocations associated with it.

vi. Explain necessary requirements in rendering social services.

STEPS

Step I The teacher revises the last lesson on patient care.

Step II The teacher explains to the pupils that one of the services they can render is social services and what it entails (voluntary service during disaster such fire outbreak, flood earthquake).

Step III The teacher shows the pupils different services that the pupils can render in such situations such as giving relief materials, making affected people comfortable etc.

Step IV The teacher mentions and explains the requirements needed in rendering these services.

Step V The teacher informs the pupils that they can be involved through training, workshop, or through involvement in non governmental organisations (NGO).

Evaluation

Pupils answer oral questions on the lesson; what do you understand by social services? Mention some of the services that can be rendered in social services?

Reinforcement

Pupils who are able to answer the question are clapped for.

WEEK 6   **LESSON 3**

Topic: Types of Vocation (Casual)

Duration: 35 Minutes

Instructional Materials: Pictures of people working in different settings

Behavioural Objectives: At the end of the lesson, pupils should be able to:

iv. Explain what is casual or part-time work

v.   Mention different types of jobs under it.

vi. List the necessary requirements in learning these jobs.

STEPS

Step I The teacher revises the last lesson on Social services.

Step II The teacher explains to the pupils that one of the vocations they can engage in is casual work and what it entails (it's a temporary vocation or job, it's flexible; it can involve variety of work).

149

Step III The teacher lists different types of jobs under casual work that the pupils can engage in such as nanny work, child mending, animal care, distributing newspapers, working in lift etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V The teacher informs the pupils that they can learn these vocations as an apprentice or in a workshop; on the job training and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by casual work? Mention some of the jobs under it?

Reinforcemen Pupils who are able to answer the question are clapped for.

WEEK 7	**LESSON 1**
Topic:	Types of Vocation (Others; Laundry Services)
Duration:	35 Minutes
Instructional Materials:	Pictures of a laundry

Behavioural Objectives:

    iii. Pupils should be able to mention different types of other vocations.

    iv. Pupils should be able to explain the requirements for learning laundry and other related services.

STEPS

Step I The teacher revises the last lesson on casual work.

Step II The teacher explains to the pupils other vocations they can engage such laundry and related services and what it entails (washing and ironing clothes, washing cars, rug and household equipment).

Step III The teacher shows the pupils different types of work under laundry services that the pupils can engage in such as household cleaning of rugs, carpet, furniture etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these jobs.

Step V The teacher informs the pupils that they can learn these vocations as an apprentice or on job training and that the services are available in their neighbourhood.

Evaluation pupils answer oral questions on the lesson; what do you understand by laundry services? Mention vocations under it?

Reinforcement

Pupils who are able to answer the question are clapped for.

WEEK 7   **LESSON 2**

Topic: Types of Vocation (Waste Management; Collecting Waste

                      and Recycling Materials)

Duration: 35 Minutes

Instructional Materials: Pictures of people recycling materials

Behavioural Objectives::

    v. Pupils should be able to define what waste and recycling materials collection are and   mention different types of vocations under it.

    vi. Pupils should be able to mention the requirements for learning and engaging these types of work.

Step I The teacher revises the last lesson on laundry services.

Step II The teacher explains to the pupils that one of the vocations they can engage in is collecting waste and recycling materials and what it entails (collecting refuse, waste and other materials and disposing them properly, collecting recycling materials).

Step III The teacher lists and shows the pupils different vocations under collections of waste and recycling materials that the pupils can engage in such as collection of waste, recycling materials and others etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V The teacher informs the pupils that they can learn these vocations as an apprentice or on job training and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by waste collection services? Mention vocations under it?

Reinforcement

Pupils who are able to answer the question are clapped for.

WEEK 7   **LESSON 3**

Topic: Types of Vocation (Delivery Services)

Duration: 35 Minutes

Instructional Materials: Pictures of different jobs on delivery services

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    iv. Pupils will be able to define delivery service vocation.

    v. Pupils will be able to mention different vocation associated with delivery services.

    vi. Pupils will be able to itemize the requirement for this vocation

STEPS

Step I The teacher revises the last lesson on waste management.

Step II The teacher explains to the pupils that one of the vocations they can engage in is delivery services and what it entails (delivery of goods and materials).

Step III The teacher lists and shows pupils pictures of different vocations under delivery services that the pupils can engage in such as goods delivery, produce delivery, mail delivery etc.

Step IV The teacher mentions and explains the requirements needed in learning and doing these vocations.

Step V The teacher informs the pupils that they can learn these vocations as an apprentice or on job learning and that the services are available in their neighbourhood.

Evaluation Pupils answer oral questions on the lesson; what do you understand by weaving vocation? Mention vocations under it?

Reinforcement Pupils who are able to answer the question are clapped for.

WEEK 8   **LESSON 1**

Topic: Vocational Interest and choice (How)

Duration: 35 Minutes

Instructional Materials: Pictures of people in different vocation

Behavioural Objectives: At the end of the lesson, pupils should be able to:

    i Pupils will be able to mention different types of vocations they can choose from.

    ii Pupils will be able to explain how to make vocational choice.

STEPS

Step I The teacher revises the last lesson on delivery services.

Step II The teacher reminds the pupils of different vocations they can do.

Step III The teacher explains the necessary requirements that the pupils will possess in other to choose a vocation such as interest, aptitude/talent, home background, training programme etc.

Step IV The teacher further explains how to develop vocational interest and vocational choice.

Step V The teacher also explains to the pupils that it is possible for them to have a vocation.

Evaluation Pupils answer oral questions on the lesson; mention some of the things you must possess in other for you to choose a vocation?

Reinforcemen Pupils who are able to answer the question are clapped for.

WEEK 8   **LESSON 2**

Topic: Vocational Choice (When)

Duration: 35 Minutes

Instructional Materials: Pictures of people in different vocation

Behavioural Objectives:

  i.   Pupils will be able to explain the impotance of vocational interest

  ii.   Pupils will be able to relate vocational interest to vocational choice

  iii. Pupils will be able to explain when vocational can made

STEPS

Step I The teacher revises the last lesson on how to make vocational choice.

Step II The teacher explains to the pupils that it is paramount for them to be independent and they can only achieve these by having a vocation.

Step III The teacher explains to the pupils the importance of making realistic vocational choice before transiting to the larger society.

Step IV The teacher explains to the importance of proper consideration of personal interest, ability, home background, sex etc before making vocational choice.

Step V The teacher reminds the pupils of different vocations they had learnt by showing them pictures of these vocations.

153

Evaluation Pupils answer oral questions on the lesson; when is the appropriate time to make vocational choice?

Reinforcement Pupils who are able to answer the question are clapped for.

WEEK 8	**LESSON 3**
Topic:	Vocational Choice Making
Duration:	35 Minutes
Instructional Materials:	Pictures of people working, in different vocation

Behavioural Objectives:

i   Pupils will be able to explain the importance of making vocational choice.

ii   Pupils will be able to mention the process of vocational choice making

iii   Pupils will be able to make vocational choice

 STEPS

Step I The teacher revises the last lesson on how and when to develop vocational interest and making realistic vocational choice.

Step II The teacher explains to the pupils the importance of vocational choice making.

Step III The teacher takes the pupils through the process of vocational choice making

Step IV The teacher explains further that it is possible for them to make vocational choice based on their interest.

Step V The teacher asks the pupils to make a vocational choice by asking them individual what type of vocation they want to do.

Evaluation Pupils answer oral questions on the lesson; can you make vocational choice? How do you make vocational choice? What is your choice?

Reinforcement Pupils who are able to answer the questions are clapped for.

APPENDIX III

SOCIO-ECONOMIC STATUS SCALE

PART 1

1. Name of student: …………………………………………………
2. School Attended: ………………………………………………..
3. Class: ……………………………………………………………..
4. Sex: Male: …………………….   Female: ……………………
5. How many cars do your parents have: ………….. Bicycles: …
6. Parents' occupation put tick (X) in appropriate box:

A	B	C	D	E
Professional Law Engineering Medicine-Senior Civil Servant Professor Lecturer Manager Graduate Teacher Senior Army Officer Bishop Priest	Clerk Office Worker Non- Graduate Teacher Nurses Police Soldier Religious- Worker	Trader Business Man	Craftsman Artisan Driver Messenger	Farmer Fisherman
Father A				
Mother B				
Guardians				

1. Educational levels of parents put (X) in the appropriate box

Educational Level	Father	Mother	Guardian
No schooling			
Elementary School			
Secondary School or Teacher Training			
Professional Training – Clergy, Trade School			
Higher than **a-d** but not University Graduate			
University Graduate (1st Degree)			
Above first Degree			

2. Parent's Residence: Put (X) in appropriate place

Parent	Own House	Company/ Government/ University Quarters	Rented House
Father			
Mother			
Guardian			

3. Put (X) in appropriate space. If in rented house state whether it is

    (a) A flat   ( )

    (b) Two rooms   ( )

    (c) One room   ( )

10. Do your parents have the following? Put (X) in appropriate space

    (i.) Radio   ( )

    (ii) Stereo Set   ( )

    (iii) A T.V Set   ( )

    (iv) A Refrigerator   ( )

    (v) Freezer   ( )

    (vi) Video Machine   ( )

11. Do your parents have the following? Put (X) in appropriate space

    (i) Executive Furniture   ( )

    (ii) Cushion   ( )

    (iii) Wooden Furniture   ( )

    (iv) Iron Chair   ( )

(v) Mat   ( )

12.   Do your parents have the following ? put (X) in appropriate space

       (i) Library   ( )

       (ii) Book Shelves   ( )

       (iii) Periodicals   ( )

       (iv) Newspapers   ( )

       (v) Nothing related to books   ( )

APPENDIX IV