METACOGNITIVE AND DIRECT – INSTRUCTIONAL STRATEGIES AS DETERMINANTS OF READING SKILLS AMONG STUDENTS WITH LEARNING DISABILITIES IN SECONDARY SCHOOLS IN OGUN STATE, NIGERIA

BY

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ABSTRACT

Reading skills are vital to successful learning in all school subjects. Students with learning disabilities are known to have difficulties in reading. Studies have been carried out on the usage of conventional methods in improving the comprehension skills of students with learning disabilities, but not much has been done on the use of metacognitive and direct-instructional strategies. This study, therefore, investigated the differential effectiveness of metacognitive and direct-instructional strategies on the comprehension skills of students with learning disabilities. The moderating effects of gender and age on the dependent variables were also explored.

The study adopted a pretest-posttest, control group quasi experimental design with 3 x 2 x 2 matrix. The participants comprised 75 Junior Secondary II students with learning disabilities identified through the use of Myklebust's Pupils Rating Scale. They were assigned to two experimental groups (metacognitive strategies and direct-instructional method) and the control group. Three research instruments were used: The Pupils Rating Scale (r = 0.97), Reading Comprehension Ability Screening Test (r = 0.77) and Reading Comprehension Skill Test for students with Learning Disabilities (r = 0.79). Seven hypotheses were tested at 0.05 level of significance. Data collected were analysed using mean and standard deviation, Analysis of Covariance and Scheffe post hoc test. Graphs were used to disentangle the second order interaction effect of treatment, gender, and age.

There was a significant main effect of treatment on the comprehension skills of participants. Students in metacognitive strategies group had highest mean score ($\bar{x}$ = 32.97), followed by direct-instruction ($\bar{x}$ = 31.55) while those in the control group (conventional methods) had the least performance ($\bar{x}$ = 25.61). The observed mean difference among the three groups was statistically significant, $F_{(2,\ 62)} = 4.62$; $p < 0.05$). The effect size of treatment was 13.0% and classified as moderate. There was no significant main effect of age and gender on the students' comprehension skills and no significant interaction effect, that is, treatment and gender, treatment and age, age and gender. However there was a significant interaction effect of treatment, age and gender ($F_{2,62}$) = 3.79; $p < 0.05$. The effect size was 10.9 % which was also classified as moderate. Late adolescents in all the treatment groups had higher comprehension skills than their early adolescent colleagues.

Metacognitive and direct-instructional strategies were effective in enhancing reading comprehension skills of students with learning disabilities. Metacognitive instruction was however found to be more effective in teaching reading comprehension skills to students with learning disabilities. Therefore, to foster greater comprehension skills among students with learning disabilities, metacognitive and direct-instructional methods should be applied. More specialist teachers in learning disabilities should be trained to assist students with reading comprehension problems.

Key words: Metacognitive strategies, Direct-Instructional strategies, Reading Comprehension skills, Learning disability.

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DEDICATION

This thesis is dedicated to the Glory of God Jehovah; the Universal sovereign.

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CERTIFICATION

I certify that Mr. Adenigbagbe, Olufemi Gospel carried out this work in the Department of Special Education, Faculty of Education, University of Ibadan, Ibadan, Nigeria under my supervision.

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TABLE OF CONTENTS

		Pages
Title page	- - - - - - -	i
Abstract	- - - - - - - -	ii
Dedication	- - - - - - - - -	iii
Acknowledgments	- - - - - - - -	iv-v
Certification	- - - - - - - -	vi
Table of contents	- - - - - - -	vii-ix
List of Tables	- - - - - - - -	x
List of figures	- - - - - - - -	xi
List of appendices	- - - - - - -	xii
CHAPTER ONE		
1.1 Background to the study	- - - - -	1-10
1.2 Statement of the Problem	- - - - -	11
1.3 Research Hypothesis	- - - - - -	11-12
1.4 Purpose of the Study	- - - - - -	12
1.5 Significance of the study	- - - - - -	12-13
1.6 Scope of the Study	- - - - - -	13
1.7 Definition of Terms	- - - - -	13-14
CHAPTER TWO: Review of Relevant Literature	- -	15
2.1 Conceptual Clarification	- - - - -	15
2.1.1 Nature and Definition of Learning Disabilities	- -	15-17
2.1.2 Characteristics of Children with Learning Disabilities	-	17-19
2.1.3 Gender and Age in Learning Disabilities	- - -	19-21
2.1.4 The Nature of Reading	- - - - -	21-23
2.1.5 Reading Comprehension	- - - - -	23-24
2.1.5a Word Recognition	- - - - - -	24-25
2.1.5b Reading for Fluency	- - - - - -	25
2.1.5c Identifying Main Ideas and Specific Details	- - -	25-26
2.1.6 The Concept of Metacognition	- - - -	26-30
2.1.7 Metacognitive Strategies	- - - - -	30-31

2.1.8 Sequencing Metacognitive Strategies Instruction - - 31-32
2.1.9 Metacognition and Reading Comprehension - - - 32-34
2.1.10 Direct-Instruction - - - - - - - 34-36
2.1.11 Features of Direct-Instruction Strategy - - - 36-38
2.2 Theoretical Framework - - - - - 38
2.2.1 Developmental Theory on Learning Disabilities and Early Language Development - - - - 38-40
2.2.2 Behavioural theory and Learning Disabilities - - 40
2.2.3 Cognitive Theory and learning Disabilities - - - 40-41
2.2.4 Instructional Strategies for Children with Learning Disabilities - - - - - - 41-42
2.3. Review of Empirical Studies - - - - - 42-43
2.3.1a Metacognitive Strategy Instruction - - - - 43-44
2.3.1b Metacognitive Strategies and Reading Comprehension - 44-45
2.3.1c Self-Monitoring Technique in Metacognition - - 45-46
2.3.1d Direct Instruction and Reading Comprehension - - 46-47
2.3.1.e Fluency and Reading Comprehension - - - 47-48
2.4 Appraisal of Literature Review - - - - 48-49
2.5 Conceptual Model for the Study - - - - 49-50

CHAPTER THREE: Research Methodology - - - 51
3.1 Research Design - - - - - - 51-53
3.2 Study Population - - - - - - 53
3.3 Sample and Sampling Procedure - - - - 53-55
3.4 Participants - - - - - - - 55
3.5 Research Instrument - - - - - - 55
3.5.1 The Pupil Rating Scale (1981) Revised - - - 55-58
3.5.2 Reliability and Validity - - - - - 58
3.5.3 Reading Comprehension Ability Screening Test (RCAST) - 58-59
3.5.4 Reliability and Validity of Reading Comprehension Ability Screening Test (RCAST) - - - - 59
3.5.5 Reading Comprehension Skill Test for students with Learning Disabilities - - - - - - 59-60

3.5.6 Reliability and Validity of Reading Comprehension Skill Test - - - - - - - 60
3.6 Procedure for the Study - - - - - 60-61
3.6.1 Screening - - - - - - - 61
3.6.2 Training of Research Assistants - - - - 61
3.6.3 Pre-Test Measure - - - - - - 61
3.6.4 Step-by-step Treatment Strategies - - - - - 61
3.6.5a Experimental group 1-Metacognitive Strategy - - 61-62
3.6.5b Experimental Group 2-Direct-Instructional Strategy - 62-63
3.6.5c Control group – Conventional Method - - - 63
3.6.6 Control of Extraneous Variable - - - - 63-64
3.6.7 Post-Test Measure - - - - - - 64
3.7 Method of Data Analysis - - - - - 64

CHAPTER FOUR: Analysis and Results - - - 65
4.1 Presentation of Results - - - - - 65-73
4.2 Summary of Results - - - - - - 73-74

CHAPTER FIVE: Discussion, Conclusion and Recommendations - 75
5.1 Discussion of Findings - - - - - 75-78
5.2 Conclusion - - - - - - - 78
5.3 Implications of the Findings - - - - - 78-79
5.4 Recommendations - - - - - - 79
5.5 Contributions to Knowledge - - - - - 80
5.6 Limitations of the Study - - - - 80
5.7 Suggestions for further studies - - - - 80-81
References - - - - - - - 82-103
Appendices - - - - - - - 104-169

LIST OF TABLES

3.1	The 3 x 2 x 2 Factorial Matrix - - - - -	52
3.2	Diagrammatic representation of variables in the study -	53
3.3	Selection of participants for the study - - -	54
3.4	Five Major Behaviour Characteristics of the Pupil Rating Scale - - - - - -	56
3.5	Five Major Characteristics of The Pupil Rating Scale and their components - - - - - -	57
4.1.1	Descriptive statistics on treatment - - - -	65
4.1.2	ANCOVA of tests of between subjects effects - -	66
4.1.3	Scheffe Post hoc test - - - - - -	67
4.1.4	Descriptive statistics on Gender - - - -	67
4.1.5	Descriptive statistics on Age - - - - -	68
4.1.6	Descriptive statistics on Interaction of Treatment and Gender	68
4.1.7	Descriptive statistics on Interaction of Treatment and Age -	69
4.1.8	Descriptive statistics on Interaction of Gender and Age -	70
4.1.9	Descriptive statistics on Interaction of Treatment, Gender and Age	71

LIST OF FIGURES

2.1 Organizational Framework of Reading Skill - - - 22

2.2 Metacognition and Three Types of Knowledge - - 28

2.3 Conceptual Model of the Study - - - - 50

4.1 Interaction of Treatment, Gender, and Age of Males - 72

4.2 Interaction of Treatment, Gender, and Age of Females - 73

LIST OF APPENDICES

Treatment Package for Metacognition - - - - 104-124

Treatment Package for Direct – Instruction - - - 125-144

Treatment Package for Conventional Method - - - 145-148

The Pupil Rating Scale (1981 Revised) - - - - 149-158

Reading Comprehension Ability Screening Test - - - 159-162

Reading Comprehension Skill Test - - - - - 163-169

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Students with learning disabilities often experience problems in reading skills. They also experience poor performance in comprehension because of their poor reading abilities. The condition of students with learning disabilities is perplexing because each individual has a unique combination of talents and characteristics. Students with learning disabilities are not blind, yet many do not see as their peers do. They are not deaf, but many of them do not hear normally. They are not retarded in cognitive development, but they learn in a different way. Many among this category of exceptional children, often exhibit unusual behaviours in the classroom which create extremely difficult circumstances for them to learn academically despite their mental capacity to do so. All these deficiencies are inherent in students with learning disabilities. The inabilities are majorly due to dysfunctioning of the central nervous system that coordinates the brain activities and responsible for all psychological processes involved in learning.

Students with learning disabilities seem to have normal intelligence but have severe difficulties in learning oral language, acquisition of reading or writing skills, or decoding mathematical concepts. Pre school children with learning disabilities often display inadequate motor development, language delays, speech disorders, and poor cognitive and concept development.

The social and academic problems that constitute the characteristics of students with learning disabilities include restlessness – hyperactivity or excessive activity and mobility, problem of understanding time and space, transposition and reversal of syllables. Others include disturbed syntax, problem of recall, problem of words combination and separation, poor memory and inappropriate school behaviour.

Students with learning disabilities often fail to acquire the necessary academic skills as expected. Such failure may occur in reading comprehension, Mathematics, writing or any other school subject. Behavioural problems can also co-occur with poor school learning skills. School behavioural problems may include inability to pay attention in class and concentrate, poor motor coordination skills, poor social skills and difficulties in organising oneself. Omotosho (2002) indicates that the most obvious characteristics of students with learning disabilities is their consistent failure to do well in class work when compared with other children of the same age and level of

intelligence and who have no physical or sensory disabilities such as blindness or orthopaedic deficits, hearing impairment, mental disabilities or visual defect. Lerner (1997) emphasizes that the awareness of consistent failure and poor achievement in comparison with their peers who are normal learning students, do create other serious personality and emotional problems in the latter part of elementary school years.

Learning disabilities first become apparent for most children at the elementary school level when they fail to grasp the needed academic skills like their normal learning class-mates. However, it is during the secondary school years that learning disabilities are fully recognised by the classroom teachers and equally accepted by the parents of children with learning disabilities. The reasons for this, as observed in the various schools are because of the radical changes from primary to secondary school level, the tougher nature of secondary school curriculum and the more advanced secondary schools' academic demands expected of the students.

The varied nature of learning disabilities had led to its many definitions. The two early pioneer definitions include the Federal Individuals with Disabilities Education Act (1990) and the Interagency Committee on Learning Disabilities (1994). The common features in all these definitions are central nervous system dysfunction, uneven growth pattern, psychological processing differences, difficulty in academic and learning tasks as well as discrepancy between achievement and potentiality.

Ikujuni and Kanu (2003) and Keller (2005) agree that learning disability is a condition that has links with the human inability to learn through psychological processes co-ordinated by the brain. Learning disability is said to be an internal problem, though, its cause could also be environmental. Psychological processes are described as the internal coordination of the brain in areas such as attention, discrimination, memorisation, understanding, concept formation, problem-solving and sensory integration. The major problem is that some children and adults are not able to operate in these areas due to one problem or the other. Keller (2005) further stresses that learning disabilities cause difficulties in organising information received, remembering them and expressing the information. These difficulties affect students with learning disabilities in reading, writing, comprehension and reasoning.

Abang (1995) and Clement (1996) refer to learning disabilities as minimal brain dysfunction in children of average or above average general intelligence with certain learning and behavioural disabilities associated with disorders of functions of the central

nervous system. Similarly, Blair and Scott (2002) contend that learning disabilities are psychoneurological disorders that include deficits in learning at any age caused by deviations in the central nervous system and which are not due to mental deficiency, sensory impairment or psychogenicity.

The term "specific learning disability" refers to children with disorder in one or more of the basic psychological processes involved in understanding or in using languages spoken or written which may manifest in imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include a learning problem, which is primarily the result of visual, hearing, motor handicaps, or mental retardation or emotional disturbance, environmental, cultural or economic disadvantage (Hallahan, Kauffman & Lloyd, 1999).

The various definitions of learning disabilities provide strong clues regarding what characteristics are found among children with learning disabilities. Hallahan, Kauffman and Lloyd (1999) identify three other vital characteristics such as wide inter-individual differences, wide intra-individual differences and association with other disabilities.

The inter-individual differences among children with learning disabilities indicate that in any group of these students, some will have difficulties in reading, some in spelling, and some will have obnoxious social behaviours. The intra-individual differences indicate that persons with learning disabilities usually display wide variability in their one ability profile. For example, a student may be three years behind his/her grade level in reading, at grade level in spelling, and a year above grade level in Mathematics. The tendency to exhibit wide intra-individual differences is the primary reason some professionals use the term specific learning disabilities when referring to this category of students. The third characteristic of association with other disabilities indicates that learning disabilities can co-occur virtually with any other disability as well as with giftedness. Two of the most common conditions that occur concomitantly with learning disabilities are attention deficit, hyperactivity disorder and emotional disturbance or behaviour disorders (Lerner, 1997).

Due to the inherent problems associated with students with learning disabilities and the difficulties the teachers contend with teaching them, various attempts have been

made to alleviate the problems. Researchers (Bickel and Bickel 1996, Brophy and Good, 1997 & Morsink 1997) and professionals have made attempts to design suitable teaching strategies and methods that will best help and enhance the learning skills of this category of children in classroom situations. Among the instructional methods are metacognition, direct-instruction, task analysis, constructive learning and applied behaviour management.

The major goal of educating students with learning disabilities has been to prepare them for a life - time learning by teaching them general skills and strategies that can be applied to various problems and learning situations. When these students use the strategies, their performance more often reached the level of normal achieving students. However, students with learning disabilities do not spontaneously adopt learning strategies and it is only when they are told and taught to use the strategies that they obtain higher levels of performance.

The field of psychology, in general, continues to make discoveries that help in alleviating the problems of children with learning disabilities because of its important contributions to the understanding of learning disabilities. For example; the recognition that psychological processing dysfunctions are related to students' inability to learn provides the foundation for the field of learning disabilities. Specifically, the specialised field of cognitive psychology provides for the latest buzzword known as metacognition. Metacognition is one of the recently developed instructional approaches in learning disabilities. Metacognition enables students to be successful learners and has been associated with intelligence (Borkowski, Carr & Pressley 1990, Sternberg, 1986, 1994).

The concept of metacognition arises from Flavel's study of memory processes (Flavel, 1977;, Flavel & Wellman, 1977). Flavel (1977) notes that although young children can learn to use memory strategies such as rehearsal, they revert to developmentally younger strategies unless they are prompted to use higher order strategies. Using developmentally young strategies in learning may be strong evidence of metacognitive deficits that learners are failing to monitor and check their own learning process.

Metacognition refers to the awareness of one's systematic thinking about learning. It is the ability to facilitate learning by taking control and directing one's own thinking processes. People exhibit metacognitive behaviour when they do something to help themselves learn and remember, such as preparing shopping lists to remember what to

buy, outlining difficult technical chapters to help understand and remember the material, or rehearsing and repeating what has just been learnt to help stability and strengthen their learning (Lerner, 1997). In educational models (influenced by cognitive theory), metacognition assumes a crucial role in learning disabilities. Deficits in metacognitive strategies even come close to assuming the status of a cause for learning disabilities in some accounts (Larson &Gerber, 1992).

Kluwe (1987) opines that efficient learners use metacognitive strategies, but students with learning disabilities lack the skills to direct their own learning. However, once they develop the metacognitive strategies that are used by efficient learners, they can apply them in many situations. The implication of Kluwe's (1987) claim is that learning disabilities approach to instruction focuses on how pupils learn rather than on what they learn. Efficient learners can count on a number of learning strategies to help them learn and remember. Children with learning disabilities do not have a repertoire of learning strategies. The teachers need to teach them to acquire learning strategies so that they can learn to be better learners.

This study uses three key metacognitive activities namely comprehension monitoring, self-questioning and self-regulation. The three metacognitive activities were used because they form the basis of metacognitive competence in language learning. Yang (2008) defines comprehension monitoring as a general competence, control or status that exists internally in one's mind. Block (1992) and Payne (1999) have mentioned earlier that comprehension monitoring is the ability to stand back and observe oneself. This is because comprehension monitoring is not something that can be obtained through rote memorization, drilling, or the teacher's one-way instruction. Instead, interaction between the teacher and students provides the best opportunities for developing competency for comprehension monitoring.

Block (1992) and Payne (1999) reiterate that comprehension monitoring competence is particularly crucial for foreign language (L2) readers since they have limited knowledge of vocabulary and grammar and have to decode meaning of texts by adopting strategies. They also need comprehension monitoring to further examine whether the strategies have successfully overcome their reading problems. Conceptual foundation of self-regulation is that teachers should be more effective in nurturing the thinking of their students. Early researches on self – regulation (Bandura, 1986; Paris & Byrnes, 1989; Zimmermann, 1990; Paris & Newman, 1990; Butter & Winne, 1995,

Pressley, 1995) analyse self – regulation as involving three interrelated, processes, self – observation, evaluation and reaction. Understanding these processes and using them deliberately is the metacognitive part of self - regulated learning (SRL). These three components of self - regulation were further reiterated by recent statements of Paris and Winograd (2008) that self - regulation is characterised by positive set of attitudes, strategies and motivations for enhancing thoughtful engagements with tasks that students can be self -directed. Self-questioning has been found to significantly improve reading comprehension presumably because of the metacognitive nature of the self-questioning process (King, 1999).

Empirical evidence suggests that learning of technical information can be achieved by training students in self-questioning (Allison & Shrigley, 1996; Graesser & Person, 2004). The agreement in literature is that self-questioning is among the most potent cognitive strategies that could simulate content learning because question generation prompts learners to search for answers they desire to know.

On the other hand, direct – instruction strategies are one of those instructional practices that stemmed from behavioural theories. Behavioural theories of instruction focus on the curriculum or task to be taught and the analysis of behaviours needed to learn those tasks. Other terms often used for direct instruction include: explicit teaching, sequential skill teaching and mastery learning (Lerner, 1997). Direct instruction is defined as a comprehensive system that integrates curriculum design with teaching techniques to produce instructional programmes in language, reading, Mathematics, spelling, written expression and science (Tarver, 2001). The term "direct instruction" refers to a rigorously developed, highly scripted method of teaching that is fast-spaced and provides constant interaction between students and the teacher.

Lovitt (1999) and Algozzine (1999) reporting on the work of Cooper (1988) state that direct instruction method concentrates on the academic skills that students need to learn and the structuring of the students to learn the skills. They state further that direct - instruction is a process in which the teacher clearly shows, demonstrates or models for students what is to be learnt, provides opportunities for students to use what was learnt, provides corrective feedback and monitoring as students learn.

In using direct-instruction method, teachers work with small groups of students, present examples according to the script and ask questions that have specific answers. The students answer collectively and the teacher provides praise or corrective feedback,

depending on the accuracy of the students' answers. When teaching complex skills, direct instruction follows the task of analytic practice of breaking the skill into compound parts and teaching students how to use the parts to perform the larger skill.

Direct-instruction method when used with children with learning disabilities requires that teachers give many different examples of a concept of operation and presents them in a way that rules out misinterpretation. To ensure that students acquire the concepts, teachers must require them to respond in ways that demonstrate that they are learning (Engelmann & Brunnier, 1995).

One of the important moderating variables of this study is age. Age is one of the factors that affect how accurately learning strategies can be effective. According to Dunlisky, Rawson and McDonald (2001), age-related differences are most relevant factors to educators in the use of learning strategy. They opine that the capability to monitor the effectiveness of one strategy vis-a-vis another, develops with age. For instance, adults discover the utility of a strategy spontaneously by using the strategy and through experiences with tasks, they will use this information to regulate subsequent study and select more effective strategies. Older children, although less accurate than adults, also monitor the utility of a particular strategy by using it and gaining feedback through tests. However, they fail to use this information to regulate a study without explicit feedback regarding test performance. Young children do not appear to accurately monitor the utility of a strategy, even when given an opportunity to monitor their test performance.

The capability to monitor learning during study (prior to test) also develops with age. Annette and Akira (1998) show that children as young as third grade recognise that it is easier to learn related items (such as; bat and ball) than unrelated items (such as; frog and table), whereas first graders fail to monitor the difference between these items. This difference in monitoring accuracy influenced regulation of study. Older children chose to re-study the more difficult items whereas younger children appeared to randomly select items for re-study.

Annette and Akira (1998) state further that adults do accurately monitor comprehension texts; discriminating better-learnt materials from less – learnt materials. They use this monitoring to guide subsequent study typically apting to re-study materials perceived as less well learnt over materials perceived as better learnt.

Brown (1987) draws an important distinction about the relationship of age to metacognitive regulation and abstract reflection. She argues that regulatory mechanisms, such as planning, are independent of age, whereas reflection is not. According to Brown (1987) regulation can be relatively unstable and age-independent changing rapidly from situation to situation. Her distinction suggests that self-regulation is more contextual than age dependence; one may show self-regulatory behaviour in one situation but not in another, and a child may show self-regulatory behaviour where an adult does not.

Crowley, Shrager and Siegler (1997) had demonstrated the relevance of age factor in the automation of cognitive and metacognitive processes. They observe that kindergarten children are most likely to think metacognitively when a lower level cognitive skill became automated. They suggest that strategies become "Associative Mechanisms" which operate without conscious effort, and allow children devote more mental processing space to the metacognitive and creative aspects of learning.

In children with learning disabilities, the automation of lower level basic skills may be delayed or deficient, thus emergence of goal sketches or automated generalised strategies may also be delayed or deficient. This means that when a child with a reading disability is reading, the strain or processing space prevents the emergence of metacognitive behaviours, while on tasks that do not require reading metacognitive behaviour can emerge.

The second moderating variable is gender. Gender differences may account for differences in classroom learning ability most especially in reading comprehension. Boys and girls learn differently due to the developmental and structural differences in male and female brains. Gurian (2001) indicates that girls' brains mature earlier than that of boys. He states that in everything, from physical development processes like the myclination of the brain to developing verbal skills like speaking and reading, females have a distinct edge over males. Several other authorities have expressed their views on sex differences in learning. For example, Omrod (2003) could not find significant differences in the intellectual abilities of boys and girls. Halpern and Layman (2000) indicate that gender differences in language learning among boys and girls may be due to hormonal differences and the various brain structures among the two sexes.

Though previous researches have looked at the impact of metacognitive and direct-instruction strategies on reading comprehension, issues of gender and age differences were unattended to. This study involves gender and age differences when

metacognitive and direct-instruction strategies were used in teaching students with learning disabilities. The study used metacognitive strategies such as comprehension monitoring, self-questioning and regulation of learning to teach reading comprehension to students with learning disabilities.

Many students with learning disabilities exhibit problems in the area of reading comprehension skills which are integral to everyday classroom learning. Students with learning disabilities often find it difficult to learn generally in all subjects because of their poor reading comprehension abilities. More often than not, students with learning disabilities experience comprehension failure. They are unable to control, organise and direct their thinking, while engaging in reading comprehension tasks. Comprehension is the heart and goal of reading. Reading comprehension is a meaning – making process involving both print and non-print texts (Alverman & Heron, 2001). Without comprehension, reading becomes a futile exercise. Jenkins and O. Conon (2002) with respect to this assertion suggest that there is the need to teach proficiency in basic reading comprehension skills. The American Reading Study Group (2002) emphasizes the need for multiple teaching procedures designed to promote students' acquisition of numerous comprehension skills and strategies.

Houbner (1999) and Carnine, Silbert, Kame'enui and Tarver (2004) list some of the reading comprehension skills. The list include: word recognition, pronunciation, detecting main ideas, detecting specific details, recognizing sequence, predicting outcomes, following directions, evaluating content and drawing conclusions.

Students with learning disabilities find it difficult to learn using self-questioning, comprehension monitoring and other strategies that can assist them to deal effectively with reading comprehension exercise. For this type of students with difficult academic circumstances, there is the need to device strategies to teach them reading comprehension skills so that they will become more sufficiently equipped in their day to day classroom learning. Previous researches in this area (Baker, 1995; Ehrlich, Remond & Tardieu,1999; & Barbara, 1998) have not been adequate because of their limited scope in terms of the number of variables involved. Most of the previous researches used only one teaching strategy because of their interest in their particular strategy of choice. The present study is among the very few researches that use more than one variable that is metacognition and direct-instructional strategies in addition to conventional method

thereby widening the scope of research in the teaching of students with learning disabilities.

Every reading programme should provide for the development of reading comprehension abilities. For many students with learning disabilities, reading comprehension is the major deficiency. This study used four comprehension skills namely: word recognition, pronunciation for fluency, detecting main ideas and identifying specific details. These four comprehension skills were taught in the treatment sessions using metacognitive and direct-instructional strategies in enhancing the reading comprehension abilities of students with learning disabilities.

The four reading comprehension skills, word recognition, pronunciation, main ideas and specific details were used because they form the primary skills that students must learn and which the teachers must teach in Junior Secondary Schools. These skills will enable the students relate the reading activity at hand that is (comprehension passage) to their background experience.

Word recognition is a necessary prerequisite for reading comprehension because it enables the students concentrate on the meaning of the text. The students need word recognition to decode printed letters, to match words with sounds and to have a means for figuring or unlocking unknown words.

Pronunciation is closely tied to word recognition. Though fluency can not be taught in a lesson; however students need to be assisted to develop fluency in word recognition skill so that they can concentrate on meaning through flow of ideas in the passage.

The third reading comprehension skill used in the study is detecting main ideas which is very necessary in the junior secondary school. Practice in teaching main ideas can help the students distinguish between essentials and non-essentials and between the most important ideas and the subordinate details.

The fourth reading comprehension skill used in this study is detecting specific details. This comprehension skill was used to assist the students resolve the specific question they may have in mind and thereby pay attention to details required to comprehend the passage.

1.2 Statement of the Problem

Students with learning disabilities exhibit substantial deficits in reading comprehension such as word recognition, poor pronunciation and fluency, problem in looking for text main ideas and specific details, general poor language comprehension and deficient vocabulary. If students with learning disabilities are not well-managed they may be impaired in other learning endeavours. Thus the potentials of such students are lost. The non – recognition of the pertinent role of reading comprehension skills in overall learning process is a major problem that stakeholders need to be conversant with. Thus, there is the need to bring the problem to fore. Furthermore, most of the class teachers are not experienced in the use of metacognitive and direct – instruction strategies in teaching reading comprehension to students with learning disabilities. It is also observable that previous researches on teaching reading comprehension using specific strategies are very often limited to the normal learning students. Hence, the use of well-developed strategies in researches among students with learning disabilities are still scanty.

In addition, previous researches on the use of teaching strategies in reading comprehension with students who have learning disabilities have not been adequate. These previous researches used only one strategy at a time, hence the studies are limited in scope.

This research uses more than one strategy, metacognitive and direct instructional strategies as well as conventional method which widening the scope of research in the teaching of students with learning disabilities. Therefore, this study examined the relative values of metacognitive and direct-instruction strategies and their differential effectiveness over the conventional method of teaching in enhancing reading comprehension skills of students with learning disabilities.

1.3 Research Hypotheses

The following null hypotheses are tested at 0.05 level of significance:

1. There is no significant main effect of treatments (Metacognitive strategies, direct-instruction and conventional method) on reading comprehension skills of students with learning disabilities.
2. There is no significant gender difference on reading comprehension skills of students with learning abilities.

3. There is no significant age difference on reading comprehension skills of students with learning disabilities.
4. There is no significant interaction effect of treatments and gender on reading comprehension skills of students with learning disabilities.
5. There is no significant interaction effect of treatments and age on reading comprehension skills of students with learning disabilities.
6. There is no significant interaction effect of gender and age on reading comprehension skills of students with learning disabilities.
7. There is no significant interaction effect of treatments, gender and age on reading comprehension skills of students with learning disabilities.

1.4 Purpose of the Study

This study was designed to enhance the reading comprehension skills of students with learning disabilities using metacognitive and direct-instructional strategies. It investigated the effectiveness of the metacognitive and direct-instructional strategies over the conventional method of teaching in assisting students with learning disabilities who have reading comprehension problems.

In addition, the study explored the moderating effects of gender and age. The effects of gender at two levels (male and female) and that of age at two levels (early and late adolescence) were examined.

1.5 Significance of the Study

This study is important because it reveals the effectiveness of metacognition and direct-instruction strategies on reading comprehension skills of students with learning disabilities. The expected benefit of the findings of this study is the needed empirical information on learning disabilities that were provided for teachers, specialists, researchers and other professionals in the area of instructional approaches. This will enhance learning skills of students with learning disabilities not only in reading comprehension but also in language generally. The results of this study should raise pertinent issues that will enhance effective implementation of relevant educational programmes for children with learning disabilities.

The study would provide a sound basis for the use of specific teaching-learning strategies such as metacognitive and direct- instruction in relevant areas of the

curriculum for students with learning disabilities. It would also expand the frontier of knowledge in the instructional approaches for students with learning disabilities and challenge the interest and practical capacity of teachers, curriculum designers, policy makers, students and all stakeholders in the education of children with learning disabilities. This study expects other researchers to look into alternative strategies that can equally be effectively used in the education of children with learning disabilities.

Finally, the study is significant because the recommendations made would be helpful to federal, state and local governments in formulating new policies for children with learning disabilities. They would also be able to get additional information about students with learning disabilities.

1.6 Scope of the Study

The study investigated the effectiveness of metacognition and direct - instructional strategies on reading comprehension skills of students with learning disabilities in three selected secondary schools in Ogun State, Nigeria. The study was delimited to the three senatorial districts in Ogun State namely; Ogun East, West and Central. The schools used were the following:

i. N. U. D. Grammar School, Obantoko, Abeokuta
ii. Methodist Comprehensive College, Sagamu.
iii. Baptist Grammar School, Ilaro

Only JSS 2 students in each school were involved in the study.

Three main instruments were used in the study

i. The Pupils Rating Scale (Revised)
ii. Reading Comprehension Ability Screening Test for Students with Learning Disabilities (RCAST).
iii. Reading Comprehension Skills Test (RCST).

1.7. Operational Definitions of Terms

The following terms were operationally defined:

1.7.1 Learning Disabilities

Students with learning disabilities are those who have severe difficulties with learning tasks having serious adverse effects on their reading comprehension abilities.

1.7.2 Metacognition

Metacognition is a learning approach to assist students with learning disabilities to direct their own thought processes in reading comprehension and other related subjects.

1.7.3 Direct-Instruction Strategies

This is a teaching-learning approach where the teacher functions as the instructional leader. The teacher teaches on a step-by-step basis according to prepared script and lay emphasis on the curriculum content.

1.7.4 Reading Comprehension Strategies

Reading comprehension strategies are tactics used to achieve understanding of the content of a comprehension passage.

1.7.5 Reading Comprehension

This is the ability of the student to read a textual material and have a good grasp of the material. It involves word recognition and showing meaningful understanding of the text.

1.7.6. Self-questioning

Self-questioning is a metacognitive strategy needed to be taught to student with learning disabilities. It involves asking themselves questions relevant to the understanding of the passage and on what they ought to know on the passage being read.

1.7.7 Comprehension monitoring

This is a self-regulating process that involves checking one's performance and comprehension level as one reads; sometimes-cutting short a statement or word because of the realization that it has been read and interpreted wrongly. Comprehension monitoring prevents comprehension failure.

1.7.8 Self-regulation

Refers to students' ability to control their learning using both knowledge and strategies. Self-regulation involves planning, self-monitoring through questioning and summarization and self-evaluation as students read comprehension passages.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

Literature pertinent to this study was reviewed in three parts namely: conceptual clarification, theoretical framework and empirical review.

2.1 Conceptual Clarification

2.1.1 Nature and Definition of Learning Disabilities

Learning disability is a condition whereby problem areas have links with the human ability to learn through psychological processes with the internal coordination of the brain in areas of attention, discrimination, memorisation, understanding, concept formation and problem solving. Not everybody is capable of operating fully in these areas of psychological processes due to one problem or the other (Ikujuni and Kanu, 2003).

The varied nature of learning disabilities had led to many definitions of learning disabilities. For example, Abang (1995) refers to learning disabilities as minimal brain dysfunction in children of average or above average general intelligence with certain learning and behavioural disabilities associated with disorders of functions of the central nervous system. Blair and Scott (2002) equally agree that learning disabilities are psychoneurological disorders that include deficits in learning at any age caused by deviations in the central nervous system and which are not due to mental deficiency, sensory impairment or psychogenicity.

Two common ideas in the concept of learning disabilities which usually stand out clearly are that:

i. there must be evidence of an ability to achieve at the same level with one's age mates within the same potential ability level and also perform at a pace, lower than his or her ability level;
ii. there must be a severe discrepancy between achievement and intellectual ability in one or more of the basic school subjects such as oral comprehension, listening comprehension, writing, reading skills, reading comprehension, mathematics calculation and mathematics reasoning (Heward, 2000; Lerner, 1997; Mba, 1995).

The term learning disability includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia (Hallahan, Kaufman & Lloyd, 1999).

In the report of the National Joint Committee on Learning Disabilities (1994: 65-66) cited by Lerner (1997), learning disability was referred to as an heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Problems in self-regulatory behaviours, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. According to the report, learning disability may occur concomitantly with other handicapping situations such as sensory impairment, mental retardation, social and emotional disturbance or environmental influences.

The analysis of the concept of learning disability could be broken down into four main points as follow:

1. Learning disabilities are heterogeneous group of disorders.
2. The problem is intrinsic to the individual
3. The problem is presumed to be related to a central nervous system dysfunction.
4. Learning disabilities may occur with other disabilities or conditions.

These four points agree with the common elements of the definitions of learning disability stated by Lyon (1999) that learning disabilities are related to neurological factors. All learning originates within the brain and, consequently, a disorder in learning can be caused by a dysfunction in the central nervous system. There is growing evidence derived from sophisticated brain research that learning disabilities has a neurological basis (Tallal, Miller & Merzenick, 1996).

Uneven growth pattern ofpsychological processing differences refer to the concept of intra-individual difference or strength of intra-individual differences (Hallahan, Kauffman and Lloyd, (1996). The mental capacities of the individual with learning disabilities do not develop in an even or normal fashion but rather unevenly. Some of these mental abilities mature in an anticipated sequences or rate, while others are lagging in their development, thereby appearing as symptoms of learning problems resulting in intra-individual differences or strengths and weaknesses in different mental or psychological processes.

Individuals with learning disabilities encounter different types of problems in learning (Lerner, 1997). One person's obstacle may be in the acquisition of speech and

oral language, another's in reading, arithmetic, handwriting, motor skills, written expression, thinking, or psychological skills. For example, Moats and Lyon (1993) view learning disabilities as failure to learn a specific skill or set of skills after validated teaching of that skill.

Most Federal and State definitions of learning disabilities emphasise discrepancy between potential and achievements; that is, the gap that often exists between what the students is potentially capable of learning and what the student has in fact learnt or achieved. Prodigious amount of literature discussed the severe discrepancy between achievement and intellectual ability (Lyon 1994, 1995a; Stanovich, 1993; Fletcher & Foorman, 1996). Issues of severe discrepancy and current achievement and how to measure them accurately remain unresolved in the field of learning disability (Salvia & Ysseldyke, 1995).

This component of the definition reflects the notion that learning disabilities are not primarily the result of other conditions, such as mental retardation, emotional disturbance, visual or learning impairments or cultural social or economic environments. About 96 percent of the U.S. has incorporated the exclusion component in their state definition (Frankenberger & Fronzaglio, 1991).

The condition of learning disabilities is a universal problem that occurs in all languages, cultures and nations of the world. Accumulating amount of literature shows that in all cultures there are children who seem to have normal intelligence but have severe difficulty in learning oral language, acquiring reading or writing skills, or doing mathematics (Kronick, 1995; Wiener, 1945; Da Fonseca, 1996).

In close connection with the universal nature of learning disabilities is the fact that it is inheritable. Often, several members of a family may have a specific reading disability. Studies of identical twins have found that more than half of reading performance impairments are consequences of inheritable influences (Defries & Alarcon, 1996; Walff, Melngailis & Obregon, 1995).

2.1.2 Characteristics of Children with Learning Disabilities

Greater proportion of children with learning disabilities presents near-normal cases, only with slight difficulties in learning. For this reason, most people find it difficult to categorise children with learning disabilities under the handicapped category. They are perceived as not being able to achieve normally because of their carefree attitudes such as rudeness or stubbornness or merely being lazy. (Ikujuni & Kanu, 2003).

In view of the multivarious nature of learning disabilities, the characteristics of children with learning disabilities consist of heterogeneous group of disorders manifested in learning process. These disorders may take the form of academic problems such as in the use of language; (reading, writing and spelling) and in mathematical operations or behavioural problems such as in the display of social and emotional disturbance and environmental influences. In fact, the contention of most authors is that the wide-range of characteristics of children with learning disabilities had helped to shape the definition of the term, learning disabilities (Moats & Lyon, 1993; Hallahan, Kauffman & Lloyd, 1996; Kauffman, 1998).

Kauffman (1998) points out the general and specific individual characteristics of children with learning disabilities. He referred to the three general characteristics as wide, inter-individual differences, wide, intra-individual differences and association with other disabilities. The specific individual characteristics are these variations of disorders from person to person such as problems in receptive and expressive use of language, problems of phonological awareness, reading deficits (dyslexia), problems with semantic and comprehension, difficulties in handwriting (dysgraphia), poor memory and inappropriate school behaviour. Others include problems of words combination and separation, problems of understanding time and space and the abstract concepts of mathematics or arithmetic such as addition/subtraction (dyscalculia).

The characteristics mentioned here are not generalisations about the population of children with learning disabilities but individual characteristics that may match a child diagnosed as having one form of learning disability or the other. We must equally observe that many of the listed learning disability characteristics portray this category of children as having mainly flaws or disorders in their learning disability profiles (Grotelushen, Borkowski & Hall, 1998).

Batshaw (2000) relying heavily on extensive literature search and clinical observations contends that the characteristics of children with learning disabilities are more often contained by the definition proffered. Citing example from the U.S. Office of Education (1977) definition, Batshaw listed seven of such characteristics and problems of children with learning disabilities in oral expression, written expression, listening comprehension, basic reading skills, reading comprehension, mathematical calculation and mathematical reasoning.

Moreover, the characteristics of children with learning disabilities are always identified not only on the basis of their learning impairments but also on cormorbid conditions. (McConaughy, Maltison, & Peterson, 1994; McKinney, 1997, 1999; Penington, 1999, Rock, Fesler & Church, 1996). Four of the cormorbid conditions include impairment in executive functions, memory impairments, emotional and behaviour disorder.

Approximately one third of children with learning disabilities has Attention Deficit / Hyperactivity Disorder (ADHD), making this most common comorbidity (Light & De Fries, 1995; Shaywitz, Fletcher, & Shaywitz, 1995). Children with learning disabilities, especially of the nonverbal types, may have perceptually-based impairments in skills.

They can also exhibit a range of emotions and behaviour disturbances, including conduct disorder, withdrawal, poor self-esteem, and depression, frequent school failure, combined with social skills impairments. These may lead to rejection, poor self-image, and withdrawal from participating in school activities (Bender & Wall, 1994; McKinley, Ferguson & Jolly, 1996).

Further, Catts (1991); Scanlon and Velutino (1996) and Lerner (1997) observe that children with learning disabilities exhibit diverse characteristics of learning and behavioural traits. Many different characteristics are associated with learning disabilities, and no single individual will display all of them. It is the assessment that will determine which characteristics an individual presents and how they impede the child's learning. Nine of these characteristics as observed by the National Centre for Learning Disabilities (1994) are: disorders of attention, poor motor abilities, perceptual and information processing problems, failure to develop and mobilise cognitive strategies for learning, oral language difficulties, reading difficulties, written language difficulties, mathematical calculation difficulties and inappropriate social behaviour.

2.1.3 Gender and Age in Learning Disabilities

The influence of age and gender has been clearly defined in literature. Females have always been observed to excel in language based subjects because of their greater verbal and reasoning abilities (Dada, 2004; Hutt, 2004). However research also confirmed that females under-perform in mathematics and science-oriented courses because of their lower level of innate, spatial ability, which restrict their understanding of shape and form. Gage and Berlin (1975); Fetuga (1993) and Shonibare (1990) remarked

that boys have less verbal ability compared to girls in language development and reading comprehension ability. They agree that males and females learn differently, most especially during the first six years of life.

Reports from clinics and schools show that four times as many boys as girls are identified as having learning disabilities. However, recent longitudinal and epidemiological studies suggest that actually there may be as many girls with learning disabilities as boys (Lyon, 1995; Shaywitz, 1990, Shaywitz, Fletcher & Shaywitz, 1995). It was suspected that most of these girls are not being identified and, therefore, represent an undeserved group of children who are at significant risk for long-term academic, social and emotional difficulties (Vogel, (1996b).

Research shows some interesting gender differences that boys exhibit more physical aggression and loss of control, whereas girls exhibit more problems in the cognitive, language and social realm (Shaywitz & Shaywitz, 1998). Boys have more difficulty in visual – motor abilities, spelling, and written language mechanics, whereas girls with learning disabilities have more severe academic achievement deficits in some aspects of reading and mathematics (Vogel, 1996b). Three reasons were identified by Lerner (1997) explaining why more boys are identified with learning disabilities and these are biological causes, cultural factors and expectation pressures. The biological reason is anchored on the belief that boys may be more vulnerable to learning disabilities whereas cultural factor has the explanation that boys may be referred to because they tend to exhibit more disruptive behaviours that are troublesome to adults. The expectation pressure is the pressure to succeed in school which may be greater for boys than for girls, making boys more vulnerable to the effects of stress.

According to the U.S. Department of Education 1995, the age of children identified with specific learning disabilities ranges from age 6 to 21. The number of children decreases sharply from ages 16 to 21. This pattern suggests that substantial numbers of children with learning disabilities are identified in the age-range of 9 to 14.

Lerner (1997) indicates that each age group preschoolers, elementary children, adolescents and adults need different kinds of skills. This notion, therefore, suggests, that certain characteristics of learning disabilities assume greater prominence at certain age levels.

At the secondary school age, learning disabilities begin to take a greater toll among the adolescents because of the radical change from primary to tougher secondary

school curriculum. The Learning Disabilities Association of America (1995) also add a social factor of development where the growing adolescents now find themselves drawn into acts of juvenile delinquency that worsen their academic ability. Hence, the Learning Disabilities Association argue that some emotional, social and self-concept problems affect the adolescents in school and subject them to more serious learning disabilities.

2.1.4 The Nature of Reading

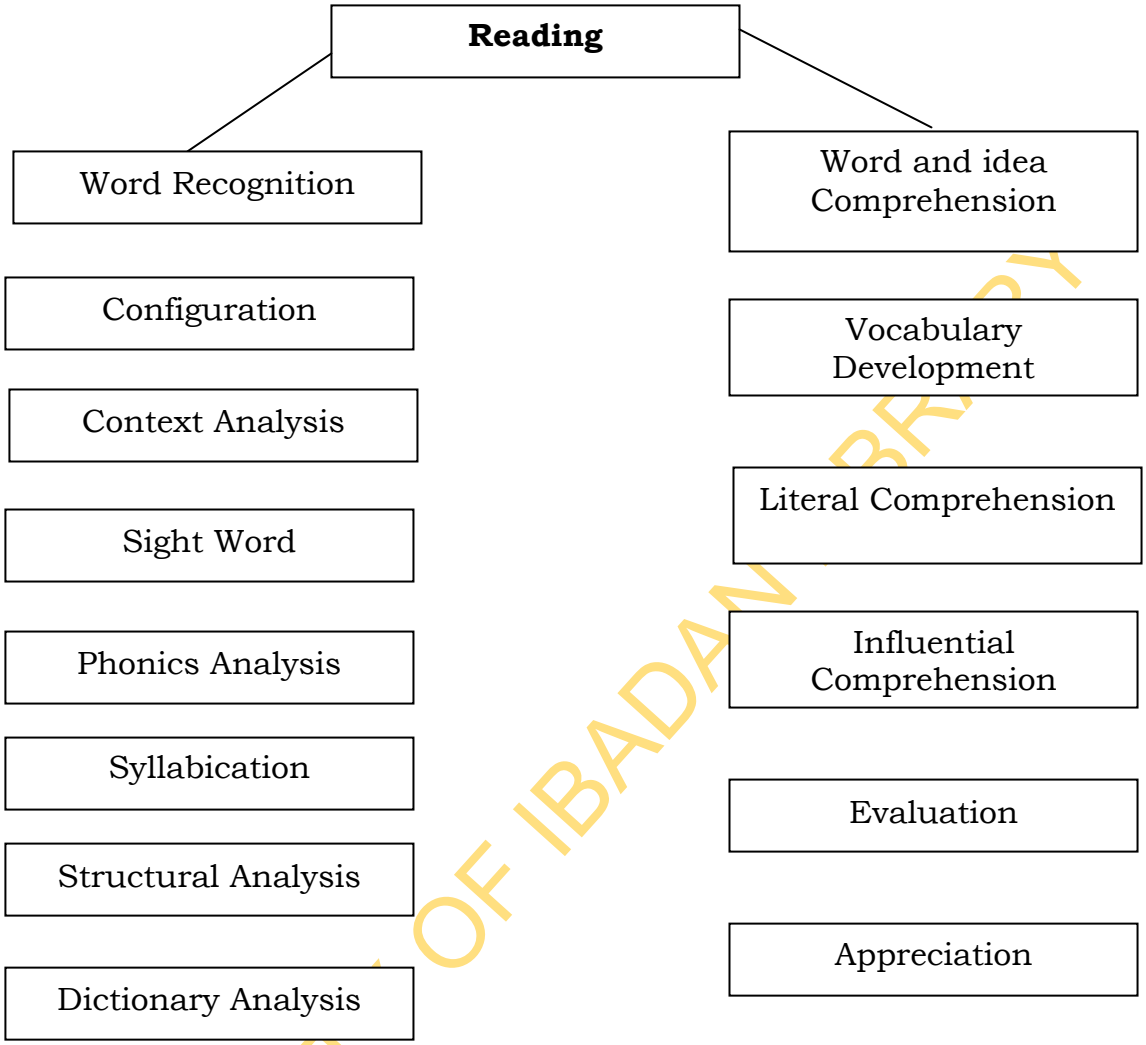
Reading is one of the central difficulties of students with learning disabilities. About 10 to 15 per cent of the general school population experience difficulties in reading (Harris and Sipay, 1990). Several authorities (Carnine, Silbert & Kameenui, 1999, Kaluger & Kolson, 1978; Drummond, 2005) suggest that reading difficulties are the principal cause of failure in schools.

Reading is a complex task with numerous definitions. In this study, reading is used as a visual auditory task that involves obtaining meaning from symbols (letters and words). Reading includes two basic processes: a decoding process and a comprehension process. The decoding process involves understanding the phoneme–grapheme relationship and translating printed words into a presentation similar to oral language. The decoding skills enable the learner to pronounce words correctly. Comprehension skills enable the learner to understand the meaning of words in isolation and in context.

According to Mercer (1992), reading content could be divided into two major skills namely; word recognition and word comprehension skills. Figure 2.1 shows the various skills involved in both word recognition and word comprehension as follow:

Figure 2.1

Organisational Framework of Reading Skills



Adapted from: Mercer, C. D. (1992); students with learning disabilities (Macmillan Pub.) p. 500.

As shown in figure 2.1, there are seven commonly used strategies of word recognition. They are:

* Context analysis (the outline or general shape of a word)
* Sight word (frequently used and usually easily recognised)
* Phonics analysis (decoding word by syllable sound association)
* Syllabication (word syllable component with vowel sounds)
* Structural analysis (meaningful units, prefixes, suffies e.t.c)
* Dictionary analysis (use of dictionary for word recognition).
* Configuration

The five major areas included in reading comprehension are:

* Vocabulary development (different words used)

* Literal comprehension (recall of explicit information)
* Inferential comprehension (recall of information using initiation)
* Evaluation (judgement based on reader's experience)
* Appreciation (emotional and aesthetic awareness)

This study focuses on students who have reading comprehension problems, thus a brief review of literature on reading comprehension is further presented.

2.1.5 Reading Comprehension

According to Webster's Dictionary, comprehension is the capacity to understand fully; the act or action of grasping with the intellect". Webster also indicated that reading is "to receive or take in the sense of (as letters or symbols) by scanning, to understand the meaning of written or printed matter; to learn from what one has seen or found in writing or printing.

Identifying words on a page does not make someone a successful reader. When the words are understood and transcend the pages to become thoughts and ideas then one is truly reading. Comprehension therefore is the capacity for understanding those thoughts and ideas.

According to Arohunmase (2001), reading comprehension is the level of understanding of writing. It is the ability to understand what we read; where words have context and texts have meaning. Arohunmase (2001) argues that reading comprehension skills allow readers to read proficiently, learn effectively, solve problem, strategise, conceptualise and succeed in life.

Manzo, Manzo and Thomas (2004) assert that reading comprehension skills allow the readers to move from elementary reading to effective reading. Reading begins as an exercise in decoding letters and sounding out words. This is passive reading and the focus is on memorising patterns and practicing fluency. Manzo et al (2004) believe that the bridge from passive to active reading requires reading comprehension. They argue that reading comprehension skills are based on earlier stages of reading development, including oral reading and reading speed/fluency and that without developing these earlier reading skills, students will continually focus on decoding letters and words, rather than pursuing the progression to meaning and understanding.

Studies in reading comprehension such as Beck, Mckeown and Kucan (2002), and Biemiller and Boate (2006), show that the key to developing proficient reading skills in the early years of education is an even earlier foundation in underlying cognitive skills.

These studies reveal that approximately 80 per cent of students testing low in reading comprehension skills also have weak underlying cognitive such as auditory and visual processing. Thus, for many struggling students, successful reading comprehension means a return to the fundamental tools that support the cognitive foundation.

The National Reading Panel (2000) conducts a comprehensive literature search on teaching reading comprehension. They conclude that vocabulary knowledge, reading comprehension instruction based on reading strategies and practice were critical to effective reading comprehension teaching. Beck et al (2002) identify three theories of vocabulary instruction namely, one focused on intensive instruction of a few high value words, one focused on broad instruction of many useful words, and a third focused on strategies for learning new words.

The use of reading strategies was first developed by Palinscar and Brown (1984), in their technique called reciprocal teaching that taught students to predict, summarise, clarify and ask questions for sections of a text. Since then, the use of strategies like summarising after each paragraph has become effective strategies for building students comprehension. The idea is that students will develop stronger reading comprehension skills on their own if the teacher gives them explicit mental tools for unpacking text (Presley, 2001). In this study, four basic reading comprehension skills were used and they are word recognition, reading aloud for fluency, identifying main ideas and identifying specific details.

2.1.5a Word Recognition

Some children fail to acquire necessary word recognition skills. Such children are often described as children with reading disabilities. The performance of such children on a standardised word recognition test is poorer than 75 percent of same-age peers, despite the absence of an alternative, recognisable explanation (e.g. lack of reading instruction, sensory impairment) (Metsala, 1997).

The reader needs word recognition to decode printed letters, to match words with sounds and to have a means for figuring out, or unlocking unknown words. Words recognition is necessary prerequisite for comprehension. Based on this assumption, Moats (2002) Spear – Swerling (2005) reiterate that teachers of students (with learning disabilities) who have reading comprehension problems should provide for intensive reading instruction programmes that can prevent reading problems of such at risk children.

Research on the failure to acquire word reading skills has increasingly focused on word recognition. Several authors including Metsala (1997), Keith (1997), Suansan and Alexander (1997) have shown from the results of their studies that children with reading problems need more of the speech input than normally achieving peers to identify target words with few similarly sounding neighbours. All the studies supported the view that spoken word recognition may be developmentally delayed in children with reading disabilities and may play a causal role in these children's failure to acquire adequate alphabetic knowledge.

2.1.5b Reading for Fluency

Another major objective in the instruction of students with reading comprehension difficulty is fluency, which is generally defined by both rate and accuracy. However, Corver (1995) argues that one must consider, at the very least, the purpose for reading, the material being read, the grade level of the reader, and the general expectancy of the classroom teacher (e.g., the fluency of the "best readers" at that grade level). Corver (1995) argues further that, it would be counter productive to stress fluency in oral reading without regard for comprehension.

Two major approaches are most common in literature for teaching fluency. These are skipping and drill approach and repeated reading approach. Lovitt and Hausen (1996), for example investigate the skip and drill" method used to enhance the oral reading and comprehension of primary and middle school students with learning disabilities. For each student, data were collected on the correct rate per minute, incorrect rate per minute, and per cent correct on comprehension questions. The repeated reading approach is frequently recommended as a means of increasing fluency, particularly for students who have reading difficulty. The approach requires the student to reread a segment of text until a certain level of proficiency is achieved. This is based on the rationale that repeated readings provide the opportunity for students to acquire automaticity with word attach skills (Gonzales & Elijah, 1994).

2.1.5c Identifying Main Ideas and Specific Details

These two basic skills are closely related and they are usually in sequence. Bauman (1994) was the first to champion the use of main ideas and specific details. Bauman taught sixth grade students to identify:

* explicit main ideas and details in paragraphs
* implicit main ideas and details in paragraphs

* explicit main ideas and details in passages
* implicit main ideas and details in passages

In conclusion, Bauman's (1994) findings show that the student who reviewed these direct instruction performed better on measures of ability to recognise implicit and explicitly main ideas and details in paragraphs and passages. Other authors; Wong and Jones (1996), Day 1998 and Brown and Day (1998) supported Bauman findings.

Further, Jitendra, Hopes and Ping (2000) investigate the effectivensss of main idea and specific details instructional procedure for improving the reading comprehension of textual material among students with learning disabilities. Thirty three middle school students with learning disabilities were randomly assigned to experimental and control groups. Students in the experimental group were trained to identify and generate main idea statement and specific details in the passage. The results of Jitendra et al; indicate that instructional procedures led to increased high performance of reading comprehension skills of students with learning disabilities (in the experimental group).

The review of literature on this study reveals the vital roles of word recognition, reading for fluency, identifying main ideas and specific details in reading comprehension exercise. This study therefore uses these four basic skills as components of the dependent variable.

2.1.6 The Concept of Metacognition

The field of psychology in general continues to make discoveries that help in alleviating the problems of teaching children with learning disabilities. Metacognition is one of those discoveries, which is derived from the field of cognitive psychology**.**

The Concise Dictionary of Psychology defines metacognition as having knowledge or awareness of one's cognitive process (Staff, 1998). Such concise and clear definition raises several questions and the most important one being the question of consciousness of people's knowledge of their own learning and cognitive processes, and thus of their regulation of these processes. Metacognition is conceptually closely related to consciousness, as noted by Roberts and Erdos (1993) and Sternberg (1994). That people engage in metacognitive activities everyday because metacognition is a higher order thinking which involves active control over the cognitive processes engaged in learning. Activities such as planning how to approach a given learning task, monitoring comprehension and evaluating progress towards the completion of a task are metacognitive in nature.

More specifically, Peirce (2003) quoting Taylor (1999) defines metacognition as an appreciation of what one already knows, together with a correct apprehension of the learning task and what knowledge and skills it requires. It also involves the ability to make correct inference about how to apply one's strategic knowledge to a particular situation, and to do so efficiently and reliably.

Metacognitive strategies are self-regulatory processes. That is, people use them to regulate their own cognition. Hallahan et al (1999) citing Borkowski (1992) indicates that these strategies are presumed to include several elements such as awareness of viable strategies, selection of appropriate strategies, monitoring of the use of these strategies and adjusting or revising of the strategies.

Metacognition is the awareness of one's systematic thinking about learning. According to Lerner (1997), it is the ability to facilitate learning by taking control and directing one's own thinking process. People exhibit metacognitive behaviour when they do something to help themselves learn and remember things such as preparing shopping lists to remember what to buy, outlining difficult technical chapters to help understand and remember the material or rehearsing and repeating what has just been learnt to help stabilise and strengthen their learning. Hence, efficient learners use metacognitive strategies, but students with learning disabilities tend to lack the skills to direct their own learning (Lerner, 1997).

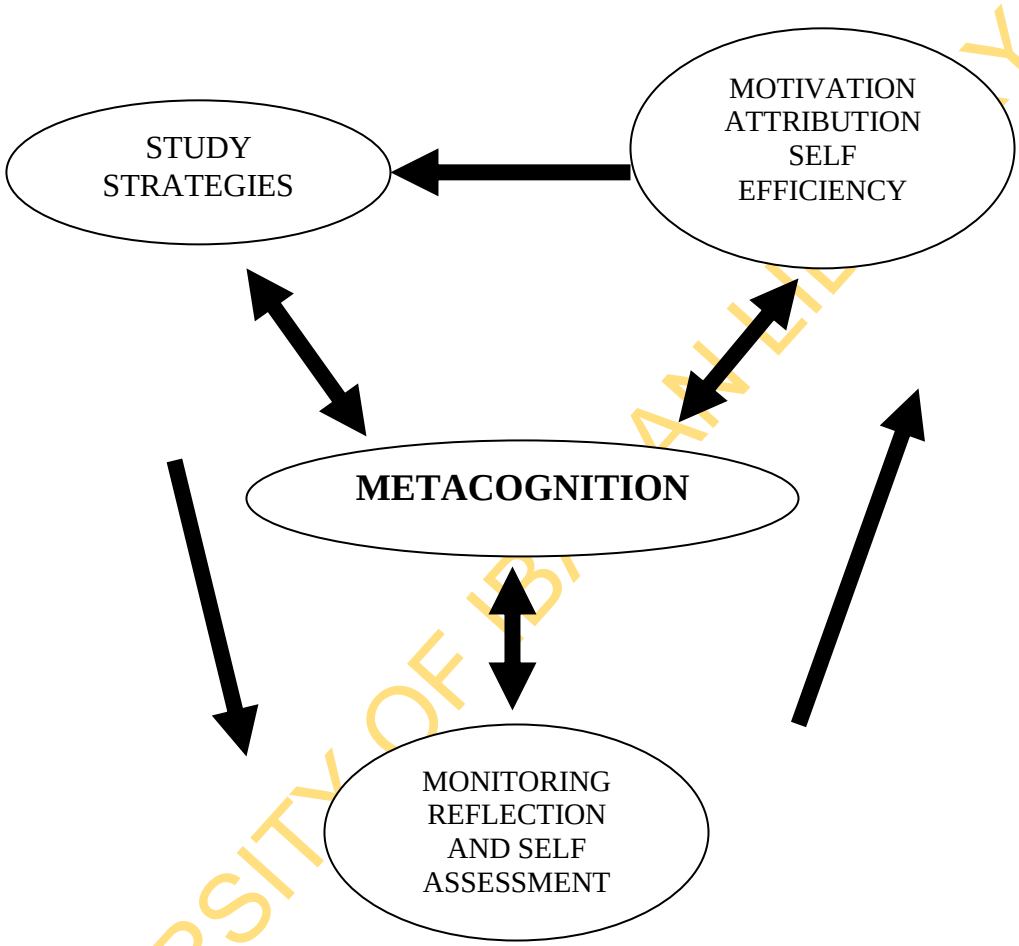
The term "metacognition" is often associated with John Flavel, (1979). According to Flavel (1979, 1987), metacognition consists of both metacognitive knowledge and metacognitive experiences or regulation. Metacognitive knowledge refers to acquired knowledge about cognitive processes and knowledge that can be used to control cognitive processes. Flavel further divided metacognitive knowledge into knowledge of person variables, task variables and strategy variables.

Pierce (2003) expanciates more on the three types of knowledge in metacognition as shown in figure 2.2 of this study. Pierce quoting Taylor (1999) said that students need to possess and be aware of three kinds of content knowledge: declarative, procedural, and conditional. Declarative knowledge is the factual information. It can be declared, spoken or written. Procedural knowledge is knowledge of how to do something, of how to perform the steps in a process; for example, knowing the mass of an object and its rate of speed and how to do the calculation. Conditional knowledge is knowledge about when

to use a procedure, skill, or strategy and when not to use it; why a procedure works and under what conditions; and why one procedure is better than another.

Figure 2.2

Metacognition and Three Types of Knowledge



Adapted from: "Better learning through better thinking: Developing students' metacognitive abilities" by Taylor S. (1999), Journal of College reading and Learning, 30 (1), 34ff. ASAP Retrieved November, 2002, from Expanded Academic Index.

Metacognitive experiences involve the use of metacognitive strategies or metacognitive regulation. Reflecting on the works of Flavell (1979, 1987); Kluwe (1982); Winograd (1990); Craig and Yore (1996) made elaborate analysis on the concept of metacognition by identifying its two underlying attributes; the two attributes are: the thinking that the subject has some knowledge about his/her own thinking and that of the other person, and secondly, the thinking that the subject may maintain and regulate the course of his own thinking.

Paris and Winograd (1990) further identify two essential features of metacognition as self-appraisal and self-management of cognition. Self-appraisals are people's personal reflections about their knowledge, states and abilities, and their affective states concerning their knowledge, abilities, motivation and characteristics as learners. Self-management refers to "metacognition in action, that is, mental processes that help to orchestrate aspect of problem solving".

The definition of metacognition, therefore, could be briefly summarised, among other things, as the active monitoring and consequent regulation and orchestration of mental processes in relation to the cognitive goal or objective (Flavel, 1976). In addition, the concept of metacognition is quite appealing for educators concerned with the design of instructional tactics and study strategies. It is also consistent with social learning theorist's notion of self-regulation as it provides the mechanism through which children begin to regulate one aspect of their lives - their own learning (Zimmerman, 1990; Smith, 1994).

One of the most attractive understandings of the problem of definition of metacognition is given by Smith (1994); he contends that metacognitive processes take place when we think about our own thinking, for example, when we reflect upon whether we know something, whether we are learning, or whether we have made a mistake. Metacognition, therefore, could be regarded as a new-fangled label for the old-fashioned concept of reflection. Smith agreed that metacognitive processes are special sets of skills to be learnt.

The account above clearly reflects all the uncertainty, which exists in understanding the phenomenon of metacognition. Many educational researcher's and practitioners use the theoretical concept of metacognition in their work without actually concerning themselves about the real mechanism which stands the term 'metacognition' (Mason, 1994; Brenna, 1995; Lucangeli; Corualdi &Tellarini, 1998).

One more interesting attempt to understand metacognition is in Roberts and Erdos (1993) statement that metacognition refers to knowledge about cognition, that is, cognising about cognition means metacognition. They argue that the distinction between declarative and procedural knowledge in cognition has its parallel in metacognition in the forms of metacognitive knowledge and executive processing that are sometimes referred to as metacognition and metacognitive strategies.

The implication of these positions is that, metacognition involves the use of metacognitive strategies or metacognitive regulation (Jennifer, 1997). Metacognitive strategies are sequential processes that one uses to control cognitive activities, and to ensure that cognitive goal (for example, understanding a text) has been met. These processes help to regulate and oversee learning and consist of planning and monitoring cognitive activities, as well as checking the outcomes of those activities. What are metacognitive strategies and how can they be used?

2.1.7 Metacognitive Strategies

The importance of metacognitive strategies has been emphasised by O'Malley, Chamot, Stewner, Mazanares, Russo and Kupper (1995) Commander and Valeri–Gold, (2001); Simpson and Nist (2000). They asserted that students without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishment and future directions.

According to Anderson (2002a), developing metacognitive awareness in learners may also lead to the development of stronger cognitive skills and much deeper processing. It results in critical but healthy, reflection and evaluation of thinking. Anderson (2002b) went further to state that the use of metacognitive strategies ignites the learner's thinking and can lead to higher learning and better performance. Metacognitive strategies are strategies that empower the learner to take charge of his/her own learning in a highly meaningful fashion.

Metacognitive strategies are components of language learning strategies classified by many scholars (Wenden & Rubin, 1997; O'Malley, Chamot, Stewner, Mazaneres, Russo & Kupper 1995; Oxford, 1990; Stern, 1992; Ellis, 1997). Rubin, who pioneered much of the work on taxonomy of language learning strategies, made the distinction between strategies contributing directly and indirectly to learning. According to Rubin, (1997), there are three types of strategies used by learners that contribute directly or indirectly to language learning. These are learning strategies, communication

strategies and social strategies. Within the domain of learning strategies, however, the two strategies contributing directly to the development of the language system constructed by the learner are cognitive learning strategies and metacognitive learning strategies.

Rubin (1997) concludes by stating that metacognitive strategies are used to oversee, regulate or self-direct language learning. They involve various processes as planning, prioritising, setting goals and self-management. It can be stated that metacognition is a term to express executive function. Strategies which require planning for learning, thinking about the learning process as it is taking place, monitoring of one's production or comprehension and evaluating learning after an activity is completed.

Based on previous research, Anderson (2006) proposes five main components of metacognitive strategies. They involve preparing and planning for learning, selecting and using learning strategies, monitoring strategies used, orchestrating various strategies and evaluating strategy use and learning. Anderson re emphasized the teaching of metacognitive strategies for valuable use of instructional time for a second language teacher. He asserts that when learners reflect upon their learning strategies, they become better prepared to make conscious decisions about what they can do to improve their learning. Strong metacognitive skills according to Anderson empower second language learners.

2.1.8 Sequencing Metacognitive Strategies Instruction

Butler and Winne (1995) suggest step – by – step sequential metacognitive instructional strategies. This method was also supported by Coppola, Ege and Lawton (1997) in which a recommendation of limited instructional strategies of three to five was made. They added that strategy instruction should be embedded as much as possible and that peers and tutors can be used at any time.

Schraw and Brooks (1999) provide the following four-step sequence:

1. The teacher should discuss and explain the value of strategies. Students should understand why they are being asked to learn strategies, what instructions will be like, and how they will use them.
2. Introduce only a few strategies. The best chance of teaching students general strategies that are useful to them is to limit the number taught to two or three over an eight-to-ten week period of instruction. This time affords students a chance to acquire the strategy, practice it and become somewhat automatic.

3. Continue practice over an extended period of six to ten weeks for instruction, modelling and practice of strategies.
4. Model strategies extensively. Even when students understand why they are learning a strategy and how to use it, they need to see the strategy modelled by a teacher or an expert.

2.1.9 Metacognition and Reading Comprehension

In relating metacognition to the task of reading comprehension, Wong and Chang (2004) identify the following activities:

1. Clarifying the purpose of reading and understanding the task demands,
2. Identifying the important aspects of a message,
3. Allocating attention to major content areas,
4. Monitoring the level of comprehension,
5. Checking whether the goals are being achieved,
6. Taking corrective action when comprehension failures are detected, and
7. Recovering from disruptions.

These mean that metacognitively oriented readers would select, employ, monitor and evaluate their use of strategies, and would be able to recognise and correct comprehension failures.

Metacognitive behaviour in a reading comprehension exercise could also be influenced by several factors (Collins, 1994). The first factor is the textual features of the respective text read. This refers to the syntax, vocabulary, clarity of the authors intentions, arrangement of ideas in the texts and the readers interest and familiarity with the text - all influence comprehension. Secondly, pre-requisite knowledge of text structure could enable the reader to more effectively observe and have greater control of strategies. These include how the author arranges ideas and determines which kinds of structures are used to interrelate ideas. For example, text structures identified as frequently used in informal or expository materials include hierarchical summaries, conceptual maps, and thematic organisers. These are designed to raise student's awareness of text structures (Harris, 1990; Digisi, 1992). Third, the characteristic of the reader is also influential. Younger and less-mature readers have apparently been found to concentrate less on textual features because they are not aware of the impact text structures have on learning.

Reading comprehension or understanding written content is the crux of the reading act. Students cannot learn unless they can comprehend reading material, and they cannot remember what they read unless they understand it. Hence, the role of reading in the secondary school is very vital, especially when it is realised that not all students are able to learn from text. When written prose materials are the vehicle for learning, content area teachers have a significant role in showing students how to learn.

The repertoire of metacognitive skills has been shown to be among the factors explaining the differences between good and poor readers (Kinnunen & Vauras, 1995). Researchers have consistently demonstrate that proficient readers typically execute one or more metacognitive behaviours as they read (Swanson & Dela Paz, 1998). Poor readers are not as adept as good readers in engaging in planful activities either to make cognitive progress or to monitor it (Garner, 1997). Poor readers, unlike good readers, have little awareness that they must attempt to make sense out of a text (Baker and Brown, 1994) and they are also unlikely to demonstrate that they notice major works to text understanding (Garner & Reis, 1991). In addition, Oakhill and Patel (1991) have shown that poor readers do not make inferences from text and do not integrate ideas from different parts of texts in order to create accurate representations. Boss and Vaughan (1994) demonstrate that even when poor readers were able to decode words correctly, they typically do not attend to the meaning of the passage, relate what is being read to their previous knowledge or monitor their own comprehension.

Metacognition plays an important role in reading comprehension and it refers to what a learner knows about his or her cognitive processes (conscious awareness) and the ability to control these processes by planning, choosing and monitoring. Its increasing role in reading comprehension is attributable to the influence of research in cognitive science. Brown (1990) identifies reading strategies instances of metacognition and described meta-comprehension as any deliberate, planful control of activities that give birth to comprehension. According to Baker and Brown (1994), metacomprehension involves two separate components; that is awareness and action.

Baker and Brown (1990) posit that awareness of one's own cognitive behaviour during reading induces: awareness of purpose of the reading assignment, awareness of what one knows about the reading task, awareness of what needs to be known and the awareness of the strategies and skills, which facilitate or impede learning from text. They explained further that action is the ability to use self-regulatory mechanisms or cognitive

monitoring to ensure the successful completion of the task such as checking the outcome of any attempt to solve the problem, evaluating the effectiveness of any attempt to solve the problem, planning one's move, evaluating the effectiveness of any attempted action and lastly, testing and revising one's strategies for learning and remediating any difficulties encountered.

They also investigate several different aspects of the relationship between metacognitive ability and effective reading. Two dimensions of metacognitive ability have been recognised, namely-knowledge of cognition or metacognitive awareness and regulation of cognition which include the reader's knowledge about his or her own cognitive resources, and the compatibility between the reader and reading situation. For example, if a reader is aware of what is needed to perform effectively, then it is possible to take steps to meet the demands of a reading situation more effectively. If, however, the reader is not aware of his or her own limitations as a reader or of the complexity of the task at hand, the reader can hardly be expected to take actions to anticipate or recover from difficulties (Carrel, 1998; Meena, 2001).

Instruction in metacognitive strategies holds the greatest benefit for students who have reading problems. The student who is proficient in reading comprehension is capable of creating his/her own learning strategies from the task he/she is given to accomplish. Students with reading problems may not be able to do this due to lack of awareness of their own learning needs (Vaidya, 1999). These students need repeated instruction to understand that they must use strategies and they need modelling before it becomes natural for them to use the strategy and transfer (it) to other relevant settings (Vaidya, 1999).

2.1.10 Direct-Instruction

Direct instruction is one of those instructional practices stemming out of behavioural theories. Other terms often used for direct instruction include, explicit teaching, sequential skill teaching and mastery learning (Lerner, 1977). Direct instruction method was first introduced by Siegfried Engelmann in 1968. Engelmann used direct teaching to help inner-city children with learning disability in U.S.A to learn and excel, regardless of their economic level.

According to Engelmann (1995), the goal of direct instruction is to teach students how to solve problems on their own. The teacher only teaches the students strategies of solving problems. The students learn these strategies by practicing; using them with

carefully selected and sequenced tasks while the teacher provides systematic guidance and feedback.

The term "direct-instruction" refers to a rigorously developed, highly scripted method of teaching that is fast-paced and provides constant interaction between students and the teacher.

According to Kozloff, La Nunziata and Cowordin (1999), programmes in direct-teaching are made up of formatted or scripted lessons that are complete and require no further development by teachers except a mastery of the instructional content. The teachers must learn the techniques of effective instruction, such as staying with the script, pacing, error correction procedures and group management skills. Each lesson is designed to be completed within 45 minutes and an hour, thereby fitting into most school day schedules.

Direct-instruction is often defined as a comprehensive system that integrates curriculum design with teaching techniques to produce instructional programmes in language, reading comprehension, mathematics, spelling, written expression and science (Tarver, 2001). The teaching method concentrates on the academic skills that students need to learn and the structuring of the environment to ensure students learn these skills (Lovitt, 1992; Algozzine, 1991). It involves processes in which the teacher clearly shows, demonstrates or models for students what is to be learnt.

Direct-instruction allocates sufficient time for instruction and the teacher continuously monitor student's performance. It is a teaching method that is rich in structure and drilling and content (Schung, Tarver & Western, 2001). Barell (1995) also believes that direct-instruction is a systematic instructional method that first and foremost, requires the teacher to have a command of the subject matter as close to a mastery level as possible. This means that whether a subject is at the elementary, secondary, college or university level, that the teacher is expected to thoroughly "understand" the content. Such understanding presupposes that the teacher not only "knows" more than the facts, but also the structure of the content, it means the teacher understands each item of the content in more than one way. The main purpose of direct instruction is to provide information within a structure that enables all students attain the stated objectives at a level of mastery.

Direct- instruction method involves active engagement at all times. The students should be made to respond actively either as one voice in a choral group or as individuals.

They can be engaged in filling their workbooks which become a permanent record of progress or listening and watching after students or the teacher. In lower classes, a typical direct instruction lesson often finds eight to ten students in a semi-circle around the teacher where they can easily see the book the teacher is using and can be clearly heard by the teacher during group session.

2.1.11 Features of Direct-Instruction Strategy

Carnine and Dixon (1999); Engelmann and Carnine, 1991; and Kozloff (1999) identify seven basic features of direct – instruction method as follow:

1. The teacher is an instructional leader. The curriculum specifies the goals, lessons and task, and the teacher presents these to his/her students. However, as the students master the material, their activities are more open-ended or student-guided. For example, the curriculum specifies what students are supposed to learn during a lesson.
2. The teacher closely supervises and coaches students during lessons and when students are working alone or in small groups. The point is for all students to master every concept, with no exception. This is possible because, after many field trials and curriculum revisions, teacher's presentations are so logically clear that most students induce the proper generalisations and discriminations that is, "get it". In addition, after years of research and field-testing, even error identification and correction are incorporated into the format. Even so, to strengthen (acknowledgement, raise) students, correct or improve activities, and to correct every mistake on the spot, teachers and students are engaged continuously so that teachers can foster high rates of student activity and attend, evaluate and respond to students actions.
3. Lessons are quick-paced. The developers of direct- instruction method learnt that a quick pace is essential for proper learning to occur. The pace sustains attention, encourages thinking (there is no time to day-dream), increases the number of opportunities to participate and reduces problematic behaviour, as students are so engrossed.
4. The absolute outcome of instruction on any lesson must be mastery. Every student in the group must be able to perform the skill independently and without mistakes.

5. Direct-instruction method focuses on cognitive learning-concepts, propositions, strategic and operations, for example, (solving problems and writing essays).
6. Direct-instruction is not rote learning. This is evident in the earliest direct-instruction curricular for language and reading (Becker 1981; Englemann, 1969).
7. Curriculum development for direct-instruction involves three analyses: the analysis of knowledge, the analysis of teacher-student communication, and the analysis of the student behaviour.

Kozloff (1999) asserts that direct-instruction method assists students in solving problems using relevant strategies. The students learn these strategies by practising them with carefully selected and sequenced tasks, while the teacher also provides systematic guidance and feedback. Researches revealed that students learn faster and generalise better when details of instruction such as choice of examples and order in which they are introduced or controlled carefully (Englemann, 1997).

Rosenshine and Stevens (1996) listed six steps to follow in a direct-teaching method.

1. Direct-instruction calls for daily review, home work checks, and re-teaching.
2. Students go into guided practice with the teacher monitoring
3. Students later go into independent practice.
4. The teacher collects feedback and provides necessary reinforcement.
5. There are weekly and monthly reviews.
6. Presentation of new information or input.

On these procedures, Rosenshine and Stevens stressed the importance of controlling the details of instruction. The interaction between the teacher and the students are structured by having lessons presented according to scripts that are developed by the authors, so that they can specify the examples to use and the order in which to present them. The lessons which are presented from a prepared script also provide guidance for teachers in specific procedures to follow and oral instructions through each step of the programme.

Borsuk (2001) contends that knowledge is made explicit and overt in direct-instruction method. The students are taught to use this knowledge in their activities. With practice, this knowledge becomes covert (internalised) for the student's cognitive development. This is the direct nature of the method.

The teacher should know what he/she wants students to learn and tell them what they will be learning before each task. This gives students a sense of predictability and control as they are joined with the teacher. The teacher also tells students what they have learnt after they have learnt it. This helps students focus on their own actions so that they can learn to direct themselves. The teacher focuses his/her students' attention on the task at hand. He/she tells, demonstrates, re-states and helps students to state and re-state rules and cognitive strategies. Furthermore, Borsuk (2001) states that the curriculum in direct-instruction is arranged so that students are taught ahead of time what they need to know in order to understand what the teacher is talking about or demonstrating, and so they can figure out how to do the next task or solve the next problem.

Nothing is inert. Students are not taught useless facts and concepts. Whatever they are taught now, they use now and later. Instructional interaction is formatted. The general format include, the statement of objective, the teacher modelling for few minutes, the teacher learning in task performances, testing the students without assistance, retesting the students for review and then doing correction of errors.

2.2 Theoretical Framework

The foundation of every discipline is built on the concepts and ideas contributed by early theorists. The various psychological theories of learning have far reaching implications for learning disabilities. Three major psychological theories of learning are most relevant to instructional practice in learning disability. They are: the developmental, behavioural and the cognitive theory.

2.2.1 Developmental Theory on Learning Disabilities and Early Language Development

Developmental theory holds a maturational view about learning disabilities. The key notion in developmental psychology is that the maturation of cognitive skills or thinking follows a sequential progression. Child's ability to learn depends on his or her current maturational status. Furthermore, this theory implies that attempts to speed up or bypass the developmental process may actually create problems.

The maturational perspective about learning disabilities explains that society creates many learning disabilities when children are pushed into performing academic tasks before they are ready to do so. The demand of schooling causes failure by requiring students to perform beyond their readiness or capacity at a given stage of maturation.

Piaget's (1970) observations of the maturational stages of thinking in children showed that cognitive growth occurs in a series of invariant and interdependent stages. At each stage, the child is capable of learning only certain cognitive tasks. As the child goes through series of maturational or developmental stages, the child's ability to think and learn changes with age. Piaget (1970) identifies four stages of cognitive development as sensorimotor period, preoperational stage, concrete operations period and formal operations stage. The transition from one stage to the next depends on maturation, and the stages are sequential and hierarchical.

Piaget's maturational theory has a lot of implication for students with learning disabilities. Among these implications is immaturity which is a major cause of school learning difficulties. What is sometimes thought to be a learning problem may be a lag in a student's maturation of certain processes. Lerner (1997), citing studies of Diamond (1983); Di Pasquale, Moule and Flewelling (1980), show that younger children in the early grades tend to have more learning problems than older children in that grade. Lerner referred to this phenomenon as – "birth date effect". Students who enter school much more earlier than the required age are more likely to be referred for learning disabilities services.

The concept of readiness in developmental theory of learning is closely linked to learning disabilities in that a particular state of maturational development and prior experiences are needed before a target skill can be learnt. Lerner (1997) notes that while normal learners pick up readiness in incidental fashion, students with learning disabilities require special attention to help them gain and strengthen the prerequisite or readiness abilities they need for their next step of learning.

Developmental theory of learning is relevant and advantageous to this study because developmental skills are the foundation for academic learning. For example, learning to read requires proficiency in the ability to understand and use language, the auditory perceptual skill of recognising sounds in words and the visual ability to discriminate and identify letters and words.

One other developmental theory relevant to this study is the Unified Model of Communication Competence theory credited to Bruner (1995), Newhalff and Laimen, (1994). The theory is based on the rate of communication in language development in infancy. The infants are regarded as active learners from the beginning. Mothers and care givers often respond to behaviours of newborns as if they were intentional and

meaningful social communication. The mother's responsiveness and sensivity to the pacing of the interaction between her and the newborn is vital for the development of a later successful language learning. All conversational exchanges according to Bruner (1995) begins early in the first year between the child and the mother and extend into well-developed conversations during the preschool years.

2.2.2 Behavioural Theory and Learning Disabilities

The behavioural theory of learning originated by Skinner (1957) focuses on the curriculum or the tasks to be taught and the qualities of behaviours needed to learn those tasks. The behaviour theory holds the view that it is important to consider the student's stage of learning when planning instruction. Among the stages involved in learning knowledge, concepts and skills are acquisition, proficiency, maintenance and generalisation.

According to Lerner (1997), the acquisition stage requires that the student is exposed to the new knowledge which he or she has not fully grasped. The student, therefore, needs extensive teacher support and direction in using the knowledge. At the proficiency stage, the student begins to grasp the knowledge but still needs practice with it. The maintenance stage ensures that the student can maintain a high level of performance after direct instruction and reinforcement have been withdrawn. Finally, at the generalisation stage, the student owns the knowledge and has so internalised it that he or she can apply it to other situations.

2.2.3 Cognitive theory and Learning Disabilities

Cognitive theory deals with the human processes of learning, thinking and knowing. According to the originators namely Koffka and Kohler (1935), cognitive abilities are clusters of mental skills that are essential to human functions. They enable one to know, be aware, think, conceptualise, use abstractions, reason, criticise, and be creative. Theories about the nature of cognitive and mental process lead to a better understanding of how the cognitive characteristics of learning disabilities affect learning.

Extensive research supports instruction based on theories of cognitive learning (Palinscar & Klenk, 1992; Wong, 1992). The focus of instruction in cognitive learning theory is to stimulate and nourish student's own mental elaborations for knowledge and to help them grow in their capacity to monitor and guide their own learning and thinking. According to Jones, Palinscar, Ogle and Carr (1989), principles of cognitive learning theories suggest that instruction must be constructive, link new information to prior

knowledge, be given in a guiding social environment, teach strategies, develop automaticity and involve motivated students. Theories of cognitive learning can be reality applied to teaching students with learning disabilities, helping them to attend, remember, understand, think and enjoy learning.

2.2.4 Instructional Strategies for Children with Learning Disabilities

The various teaching strategies for children with learning disabilities are qualitatively different from that of their normal learning counterparts. This is a major fall-out in the education of children with learning disabilities (Ikujuni & Kanu, 2003). Since this category of children is found in the regular schools, there is the need to design specialised methods and strategies in handling their peculiar learning deficiencies and short- falls.

Lerner (1997) reveals from abundant literature the contributions of developmental, behavioural and cognitive psychology to learning disabilities. The developmental psychology holds a maturational view about learning disabilities. An attempt to speed up or bypass the developmental process may actually create problem in learning. Lerner (1997) citing the works of Piaget (1979) remarks that a child's ability to learn depends on his or her current maturational status. The maturation of cognitive skills follows sequential progression. The maturational perspectives suggest that society creates many learning disabilities when children are pushed into performing academic task before they are ready to do so (Silver & Hagin, 1999).

The behavioural psychology helps to understand how learning behaviour is shaped. The theories of behavioural psychology provide a systematic foundation of instruction for learning disabilities (Haring & Kennedy, 1999). The behavioural theories, therefore, recommend that direct instruction is effective for teaching students with learning disabilities and that direct instruction can be combined with many other approaches to teaching. In planning instruction, teachers must consider the student's stage of learning a particular concept.

Cognitive psychology also makes a lot of changes and influences instructional strategies in the field of learning disabilities. Cognitive psychology deals with the human processes of learning, thinking, and knowing. Lerner (1997) elaborates that psychological processes are underlying abilities in such areas as perception, motor, linguistic and memory functions. The recognition that psychological processing dysfunctions are related to student's inability to learn provided the foundation for the

field of learning disabilities. This concept of disorders in psychological processing also offers a useful perspective for assessing and teaching students with learning disabilities (Adelman & Taylor, 1997; Torgesen, 1999).

These three theoretical backgrounds (developmental, behavioural and cognitive psychology) provided the foundation through which the various instructional strategies for children with learning disabilities emanate. Hallahan, Kauffman and Lloyd (1999); Lerner (1997) identifies some of these teaching strategies which include: metacognition, direct instruction, task analysis, behaviour analysis, constructive learning, information processing, nuemonic instruction, cognitive behaviour modification, authentic task experiences and socially-mediated learning. Metacognition and direct instruction are the two strategies of concern in this review of literature.

2.3 Review of Empirical of Studies

A large body of research supports the positive effects of training on strategies in language learning performance (Carrel, Pharis & Liberto, 1989; Carrel, 1998; Oxford, 1990a, 1990b, 1996; Oxford, Park-Oh, Ito & Sumrall (1993). Carrel (1998) claims that through practice and instructions in strategy use, the learner's use of strategies can be automatised.

Chamot and Kupper (1989) find out from their research on the use of language learning strategies that instruction on learning strategies may help learners in the following three ways. It can help students become better learners. Skill in using learning strategies assists them in becoming independent and confident learners. Learners become more motivated as they begin to understand the relationship between their use of strategies and success in learning language(s).

Abundant body of research has been carried out by O'Malley and Chamot (1994); Oxford (1996) Oxford, Park-Oh, Ito & Sumrall (1997) found that the use of learning strategies in classroom instruction is fundamental to successful learning. Supporting their findings, Brown and Penny (1997) and Ellis (1998) in their studies of six cases find that strategy training can enhance both the process of language learning (the strategies or behaviours learners use and the affective elements involved) and the product of language learning (changes in students' language performance).

Both learners and teachers need to be aware of learning styles and strategies through strategy instruction. Attempts to teach students to use learning strategies have

produced good results (Rubin and Thompson, 1994). The main objective of such attempts is to allow students become more aware of their preferred learning strategies and to help them become more responsible for meeting their own objectives. Such objectives can be achieved only when students are viewed in strategy use so that they become more independent and effective.

2.3.1a Metacognitive Strategy Instruction

Metacognition involves active monitoring and consequent regulation and orchestration of cognitive process to achieve cognitive goals (Flavel, 1977). Several studies have been conducted on the positive influence of metacognition on learning. Graham (1997) find from his studies that metacognitive strategies allow students to plan, control and evaluate their learning. It has the most central role to play in improving learning. This finding was supported by Anderson (2002b) that developing metacognitive awareness may also lead to the development of stronger cognitive skills.

In one of the recent studies carried out by Rasekh and Ranjbary (2003) on metacognitive strategy training, two groups of reading comprehension class were randomly assigned to control and an experimental group. Both groups received instruction on reading comprehension exercises through 10 week period instruction. However, only the experimental group received metacognitive strategy training during the course of the semester. The training model used was based on the framework for direct language learning strategies instruction proposed by Chamot and O'Malley (1994). The result of the study showed that explicit metacognitive strategy training had a significant positive effect on the students' reading comprehension skills.

The importance of metacognitive strategies has been emphasised by O'Malley, Chamot, Stewner, Mazanares, Russo, and Kupper (1995) by stating that "students without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishment and future directions". According to Anderson (2002), developing metacognitive awareness in learners may also lead to the development of stronger cognitive skills and much deeper processing. It results in critical but healthy reflection and evaluation of thinking.

In another study carried out by Wong and Chang (2004) on metacognitive strategies, 30 Singaporean students' knowledge and use of metacognition during reading comprehension exercise were investigated. The 30 students were divided into two groups of 14 good readers and 16 poor readers according to their reading comprehension

abilities. The results of the reading comprehension tests show that good readers performed better in reading comprehension than the poor readers in view of their knowledge and use of metacognitive strategies. This was supported by the findings of reviews of researches that the repertoire of metacognitive skills has been among the factors explaining the differences between children who are good readers and those with reading problems (Kinnunen & Vauras, 1998).

Researchers have consistently demonstrated that proficient readers typically execute one or more metacognitive behaviour as they read (Sawson & De la Paz, 1998). For example, students with reading problems are unlikely to demonstrate that they notice major blocks to text understanding. Even when they are able to decode words correctly, they typically do not attend to the meaning of the passage, relate what is being read to their previous knowledge, or monitor their own comprehension (Boss & Vaughan, 1994).

2.3.1b Metacognitive Strategies and Reading Comprehension

Metacognitive knowledge and reading comprehension were related significantly in most studies reported in literature (Idol, Idol & Croll 2000), Wong and Jones, 1990; Schunk, Rice, Weisberg & Balajthy, 1998; and Taylor 1995). Metacognitive knowledge in all these studies was defined as knowledge of the relation between reading variables and reading comprehension. For example, (Idol, Idol & Croll 2000); Schunk and Rice (1995); Wong and Jones (2000) reveal that story mapping and questioning method as strategies in metacognition do increase comprehension ability.

In Weisberg and Balajthy study (2003) various comprehension measures were used and the students were told how important metacognitive components such as comprehension monitoring, questioning and self-evaluation are. Each of the studies indicated learner's differences in reading comprehension. The diverse learners gained better from metacognitive training while the normally achieving learners (readers) declined gradually in performance. The findings finally concluded that metacognitive strategy, although beneficial for diverse learners (readers) is detrimental for normally achieving students (readers).

Several other research evidences reported very recently by Cullins (2004), corroborated the relation between metacognitive knowledge and reading comprehension as investigated in 13 students. With one exception, all the studies reported a statistically significant effect of metacognitive knowledge on students' reading comprehension.

In terms of learners differences, normally achieving students demonstrated more metacognitive knowledge than diverse learners (readers) but did not benefit more from metacognitive knowledge instruction. There were convergent findings that metacognitive knowledge and reading comprehension were related significantly in 92% (n = 12) of the studies. Significant findings were reported in 10 of the experimental studies (Chan, Cole & Borfet, 1997; Idol, Idol, Ciall, Wong & Jones, 1999; Billingsley & Wildman, 2000; Harris and Pressley, 1999; Rattman & Cross, 1998; Schunk & Rice, 1999b studies 1 and 2; Schunk, Rice, Weisberg and Balajthy, 1998; Simmonds, 1996; (I) quasi-experimental study (Wong & Wong, 1999), and (I) non-experimental study in Taylor and Paris (1999). The evidence for metacognitive knowledge facilitating independent reading comprehension ability was abundantly demonstrated in the studies.

2.3.1c Self-Monitoring Technique in Metacognition

Some of the studies on metacognition focus on the value of self-monitoring in metacognitive strategy. Jitendra, Hopes and Ping (2000) show that self-monitoring involves checking one's comprehension and remediating comprehension failures. For example, self-questioning can be used to monitor one's own reading comprehension and summarisation of the text.

In the studies of Graves (1990), cited in Weisberg (1998), the effect of self-monitoring method on reading comprehension ability was investigated by randomly assigning 44 students with reading problems to three instructional conditions: Traditional comprehension, Direct Instruction of main ideas, and Direct Instruction of main ideas plus self-monitoring. Students in the combined group received opportunities to self-monitor and remediate their reading during eight training sessions. A week later, all students were tested on identifying passage main ideas. The report showed that students in the combined group identified significantly more main ideas than students in the other two groups. The data also indicated that strategy instruction was enhanced by inclusion of a self-monitoring component.

This finding was supported by Malone and Mastroprieri (1999) in which the contribution of self-monitoring to metacognitive strategy was investigated. Fourty five students with reading problems were randomly assigned to three instructional conditions namely; traditional comprehension, summarisation and summarisation plus self-monitoring.

The students received two days instruction. Comprehension was measured using near-transfer, post, and far-transfer recall tests. For each test, students were required to provide answers to 12 questions about the test passage. The findings indicated that the summarisation plus self-monitoring students recalled significantly more information from the self-transfer passage than summarisation and traditional comprehension groups. It was also reported that self-monitoring enhanced the efficacy of strategy instruction.

Further, the study of Palinscar, and Brown (1997) adds support to the relationship between metacognition and reading comprehension when the effect of combining metacognitive knowledge and self-regulation was investigated among students of varying reading skills. Partial evidence of a relation between reading comprehension and strategy instruction containing metacognitive knowledge and self-regulation was reported.

The findings of Rattman and Cross (1999) show that the students failed though they had metacognitive knowledge that should help them succeed. The findings of the study revealed significant variability in the amount of comprehension improvement the students made. Most of the students failed to improve on reading comprehension exercise.

Ineffective use of metacognitive knowledge was cited as a possible explanation why some of the students failed even though they had knowledge that should help them succeed. This assertion was supported by the study of Cornakli (1995) and his findings of plausible and implausible passages comprehensibility. Johnston and Winograd (1990) use the term "passive failure" to describe this phenomenon.

The reviewed studies of Collins and Swanson (2000) in their research synthesis provides evidence that metacognitive instruction enhanced reading comprehension of diverse learners (students with learning disabilities). However, there was mixed support for the same benefit for normally achieving students.

2.3.1.d Direct Instruction and Reading Comprehension

Literature describes direct instruction as a brisk-spaced and teacher-directed approach. It involves teacher modeling, group and individual responding and students' regular practice until mastery level is achieved. This is the potent value of direct instruction most especially among students with learning disabilities (Swanson, Harris & Graham 2003).

Adams and Carnine (2003) further emphasize the effectiveness of direct-instruction approach in reading comprehension among students with learning disabilities. Using a meta-analysis in a research-based direct-instruction curriculum, Adams and Carnine (2003) taught a group of 30 students in lesson duration of 34 – 45 minutes daily for a period of 8 months to one year. They reported an overall effect size of 0.93. The findings from this study show that:

1. Direct instruction is an effective method of teaching reading skills to students with learning disabilities.
2. Direct –instruction was effective for high school students and adults.
3. Interventions lasting a year or less had higher effect sizes than those lasting more than a year.
4. Students respond better to direct-instruction delivered by their regular classroom teacher than teacher trained by researcher specifically for a research study.
5. Direct-instruction has positive effects on student performance in controlled laboratory setting as well as in real world classroom settings.

Adams and Carnine (2003) conclude that direct-instruction programme is among the most effective research-based methods of teaching reading skills to students with learning disabilities. They give two reasons for their conclusion. The first reason is that the elements that make up the larger curriculum in direct-instruction are well grounded in scientific research. The second reason they proffer is that the individual curriculum in direct-instruction undergo extensive testing before they are published for use by educators and professionals.

2.3.1.e Fluency and Reading Comprehension.

The National Reading Panel (2000) selects reading fluency as one of the five major areas of reading instruction. One reason for this is that children are not achieving fluency in reading. On the basis of this the National Reading Panel NRP conducts a large study on the status of fluency achievement in American education. The study examines the reading fluency at a nationally representative sample of fourth graders.

The findings of the National Reading Panel show that 44% of the students are diffluent. Further findings show a close relationship between fluency and reading comprehension.

Other empirical studies Fuchs, Fuchs and Maxwell (1998) show that a measure of oral reading rate for text has .91 correlation with reading comprehension scores from a

widely used standardized measure in a sample of middle-school and junior-high-school students with reading disabilities. Jenkins, Fuchs, Fuchs, and Hasp (2001) report that measures of oral reading rate have more high correlation with reading comprehension scores than measures of silent reading rate in a sample of children whose reading skills varied widely. All of these studies indicate that students who are low in fluency have difficulty getting the meaning of what they read.

Fluency is the power to read quickly and accurately. The more fluent a reader, the more he automatically groups and recognizes words. Fluency is important because it provides a bridge between word recognition and reading comprehension. Fluent readers recognize the words and comprehend their overall meaning at the same time.

Reading fluency is the key to reading comprehension, less fluent readers often fall behind in educational and professional achievement. However, it is crucial to help students moving from recognizing word in isolation to reading fluency in text.

2.4. Appraisal of Literature Review

This chapter reviewed literatures on metacognition, direct-instruction, the importance of metacognition and direct-instruction teaching methods in enhancing reading comprehension skills of students with learning disabilities. The chapter also reviewed concepts of reading and comprehension.

The review revealed that metacognition and direct-instruction are among the methods of teaching students with learning disabilities. Many researchers had used these methods in teaching many subjects including reading comprehension to students with learning disabilities. The efficacy and inefficacy of these methods were discussed in the literatures reviewed. Metacognition has helped to bridge the gap between regular teaching and special teaching among students with learning disabilities. Metacognition has also been found useful in teaching several subjects at various levels of education for different age groups.

Direct-instruction has been found to have positive impact on students learning and accuracy in teaching. Mastery learning, improved problem solving skills and ability to generalise are achieved by direct-instruction.

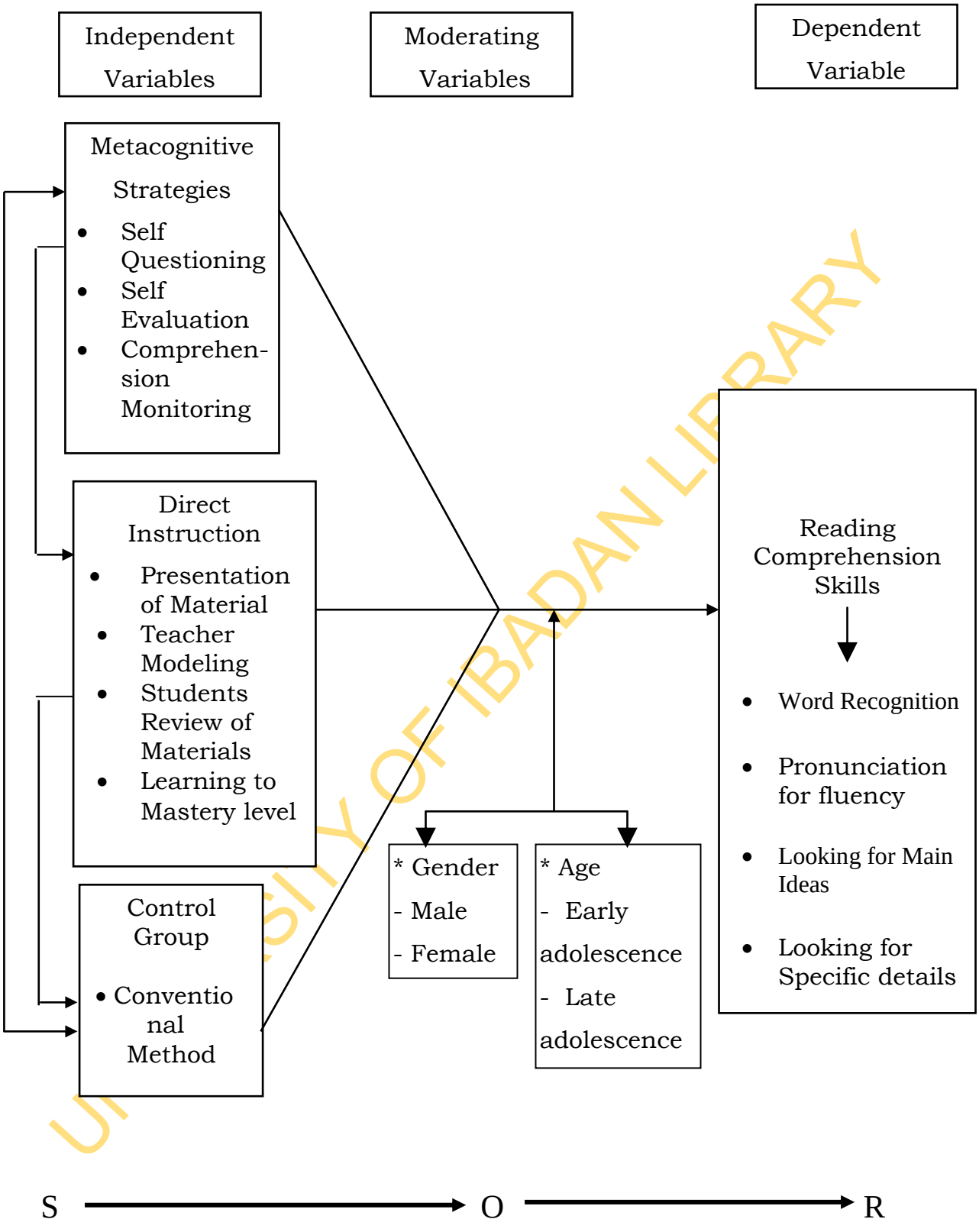
The importance of reading comprehension skills to students with learning disabilities can not be over-emphasised. It is very important because it makes the students independent, enhances self -respect and self-esteem.

The relevance of gender and age on the students with learning disabilities were also reviewed. It was discovered that more males have learning disabilities while several females with learning disabilities remain unidentified.

The review of literatures had shown that there is need for the use of metacognition and direct-instruction in the enhancement of academic development of students with learning disabilities.

2.5 Conceptual Model for the Study

The conceptual model (Fig 2.3) gives an explanation on the process by which the study was carried out. The independent variables are the instructional methods (metacognitive instruction strategy, direct-instruction strategy and the control). The independent variables except the control group were manipulated as treatment groups in teaching reading comprehension skills to the participants. The moderating variables are the factors, which will affect the participants' responses to instructional strategies (metacognitive, direct-instruction and the control). They are gender and age. The dependent variable is the reading comprehension enhanced skills to be developed in the students. They are word recognition, fluency by pronunciation, looking for main ideas and looking for specific details. The dependent variable describes the results and ultimate goal of the research. Figure 2.3 also identifies the stimulus, organism and the response as independent, moderator and the dependent variables respectively.



KEY: S – Stimulus O – Organism R – Response

Figure 2.3 Conceptual model of the study

CHAPTER THREE

RESEARCH METHODOLOGY

The chapter covers the research design, variables of the study, study population, sampling procedure, participants, research instrument and method of data analysis.

3.1 Research Design

The research adopted a pre-test, post-test, control group quasi-experimental design. It was used to determine the differential effectiveness of metacognition and direct instruction methods on the reading comprehension skills of students with learning disabilities in selected secondary schools in Ogun State.

A 3 x 2 x 2 factorial matrix was adopted with instruction strategies (at three levels) moderated by gender at two levels (male and female) and age at two levels (early and late adolescence).

This design is presented below as:

0_1 X_1 0_4 - E_1

0_2 X_2 0_5 - E_{2y}

0_3 X_3 0_6 - Control

Where 0_1, 0_2, and O_3 represents pre-test observations in experimental group 1, 2 and Control respectively. 0_4, 0_5 and 0_6 represent post-test observations in experimental groups 1 and 2 and Control respectively. X_1 represent treatment of metacognition method group while X_2 represent treatment of direct instruction and X_3 is the conventional method used in control.

Table 3.1: 3 x 2 x 2 Factorial Matrix.

Treatment	Gender	Age		
Treatment		**Early Adolescent**	**Late Adolescent**	**Total**
Metacognition (T_1)	Male	6	6	**25**
	Female	6	7	
Direct Instruction (T_2)	Male	7	6	**25**
	Female	6	6	
Control (T_3)	Male	6	5	**25**
	Female	7	7	
Total	**Gender**	**38**	**37**	**75**

The above table shows the treatment conditions (T) and the experimental condition where:

T_1 - Metacognitive strategy

T_2 - Direct Instruction

T_3 - Control (Conventional teaching method)

Variables of the Study

The variables in the study are:

(1) Independent variables:

(a) Metacognitive

(b) Direct Instruction

(c) Control (Conventional teaching method)

(2) Moderating Variables:

There are two moderating variables namely:

(a.) Gender at two levels:

(i) Male

(ii) Female

(b) Age (Adolescence stage) at two levels:

(i) Early

(ii) Late

(3) Dependent Variable

Reading Comprehension Skills

Table 3.2: Diagrammatic Representation of variables in the study

Independent Variables	Moderating Variables	Dependent Variables
Metacognition strategy	(A) Gender (i) Male (ii) Female	Reading Comprehension Enhance skill
Direct Instruction	(B) Age (i) Early adolescent (ii) Late adolescent	
Control group		

3.2 Study Population

The study population consists of all Junior Secondary II Students with learning disabilities in Ogun State who also have reading comprehension problems.

The schools were selected on the following criteria:

(i) The 3 schools are among the biggest grade I Secondary Schools in Ogun State with average population 900 students.

(ii) They are public schools with over 30 years of existence.

(iii) They are co-educational schools.

(iv) The teachers have minimum educational qualification of Nigeria Certificate in Education (NCE).

(v) One school selected from each Senatorial Districts of Ogun State.

3.3 Sample and Sampling Procedure

The sampling procedure involves screening test administered to 200 Junior Secondary II Students nominated by the class teachers in the three schools used for the study. The teachers nominate these students because they are more familiar with them. The teachers interact more with the students on daily basis in the class rooms and more importantly the teachers have the behaviour and academic records of each student in

their classes. The nominated students were those with poor academic records and observed as having learning disabilities by the class-teachers. Seventy five (75) Junior Secondary II students were nominated in NUD Grammar School, Obantoko, Abeokuta, sixty five (65) and sixty (60) were nominated in Baptist Grammar School, Ilaro and Methodist Comprehensive College Sagamu respectively. A standardized screening instrument titled "The Pupil Rating Scale" developed by Myklebust (1981) was administered to the 200 class II students in order to identify students that were actually qualified for learning disabilities treatment programme. A total number of one hundred and sixty (160) students with learning disabilities were finally selected in the three schools.

Table 3.3 represents the sampling procedure followed in the study. Fifty eight (58) students were selected by screening in N.U.D. Obantoko. Fifty two (52) and fifty (50) were selected by screening in Methodist Comprehensive College, Sagamu and Baptist Grammar School, Ilaro respectively. The 160 students identified with learning disability scored 24-58 on the use of the Pupil Rating Scale (Revised).

Table 3.3: Selection of participants for the study

	List f Schools	**Number of students nominated who have poor academic record**	**Number of students with learning disabilities**	**Number of students with learning disabilities who have reading comprehension problems and who are participants**
1	N.U.D. Grammar School Obantoko, Abeokuta	75	58	25
2	Methodist Comprehensive College, Sagamu	65	52	25
3	Baptist Grammar School, Ilaro	60	50	25
	Total	**200**	**160**	**75**

A further screening was done among the (160) students identified with learning disabilities using Reading Comprehension Ability Screening Test. This test was used to

select those who had reading comprehension Ability Problems. A sample size of seventy five (75) students was selected in the three schools used in the study. The three schools were randomly assigned to the two treatment groups and control group as follows:

(i) NUD Grammar School, Obantoko, Abeokuta – (Ogun Central). Metacognitive strategy group, 25 students

(ii) Baptist Grammar School, Ilaro – (Ogun West). Direct Instructional strategy group, 25 students.

(iii) Methodist Comprehensive College, Sagamu – (Ogun East). Control group, 25 students.

3.4 Participants

The participants for this study were seventy five (75) Junior Secondary II students of ages 14 – 18 years with learning disabilities selected from three secondary schools. One school was used from each of the three senatorial districts in Ogun State. The seventy five (75) participants comprised 25 students with learning disabilities from each of the three schools.

3.5 Research Instruments

Three instruments were used in this study. Two were used for screening while the third one was used as pre and post-test measures.

The instruments are:

i. The Pupils Rating Scale (Revised), developed by Myklebust (1981).

ii. Reading Comprehension Ability Screening Test (RCAST).

iii. Reading Comprehension Skill Test (RCST).

The following treatment packages were also used in the study:

i. Treatment package for metacognitive strategy.

ii. Treatment package for direct-instruction.

iii. Conventional classroom teaching method.

3.5.1 The Pupils Rating Scale (1981) Revised

Content of the Instrument

The Pupil Rating Scale is a screening test for children with learning disabilities, authored by Myklebust in 1971 and revised in 1981. The rating scale remains valid

currently for teachers to screen children nominated for learning disabilities in the classroom at any time.

It is a Standardised scale. It is flexible and it can be easily adapted to any cultural background without many alterations. The scale has been very accurate in identifying children who have high risks of failing in school work, even in Nigeria because it has no discriminatory features (Kanu, 2004).

The Pupil Rating Scale consists of five major behavioural characteristics which are:

- Auditory comprehension
- Spoken language
- Orientation
- Motor coordination
- Personal – social behaviour

The behaviour characteristics listed above were grouped into two categories, namely verbal and non-verbal. Auditory comprehension and spoken language were classified as verbal while orientation, motor coordination and personal-social behaviour were classified as non-verbal. The Pupil Rating Scale contains 24 items in all. Each item was assessed on a five-point scale with a rating of 3 as average score and a rating of 4 and 5 as above average scores. Ratings that fell below the average received one or two scores. A score below the average result would suggest the presence of learning disability in a child and vice versa. Each of the behaviour characteristics has the following number of items:

Table 3.4: Five Major Behaviour Characteristics of the Pupils Rating Scale (Revised) with Number of Items and Maximum Obtainable Scores.

	Behaviour characteristics	**No of items**	**Maximum obtainable score**
1.	Auditory comprehension and memory	4	20
2.	Spoken language	5	25
3.	Orientation	4	20
4.	Motor coordination	3	15
5.	Personal-social behaviour	8	40
	Total	**24**	**120**

The various items under each behaviour characteristics assessed are the following:

Table 3.5: Five Major Behaviour Characteristics of the Pupil Rating Scale and Their Components.

I. Auditory Comprehension	II. Spoken Language	III.Orientation	IV. Motor Coordination	V. Personal social behaviour
1. Comprehending Word Meaning	1. Vocabulary	1. Judging	1. General Coordination	1. Cooperation
2. Following Instructions	2. Grammar	2. Spatial Orientation	2. Balance	2. Attention
3. Comprehending Class Discussion	3. Word Recall	3. Judging Relationships	3. Manual Dexterity	3. Organisation
4. Retaining Information	4. Story Telling Relating Experience	4. Knowing Directions		4. New Situations
	5. Expressing of Ideas			5. Social Acceptance
				6. Responsibility
				7. Completion of Assignments
				8. Tactfulness

The class teacher did the rating on a five-point scale. A rating of 3 is average. Ratings of 1 or 2 are below average. Rating of 4 or 5 is above average. A rating of 1 is the lowest and a rating of 5 is the highest that can be given. The teacher indicated his rating by circling the number that represented his/her judgment of the child's level of function. The teacher did the rating of the students because he / she is more familiar with them. He/she knows their area of weaknesses and strengths. When making evaluation,

the teacher rated only one area of behaviour at a time, bearing in mind that the child might be functioning well in some aspects but not in others.

3.5.2 Reliability and Validity

The pupils rating scale is a standardised scale. The author of the scale normalised it on a large population and found the instrument to be highly reliable and valid as a screening device. Kanu (2004) and Ikujuni (1995) adapted this scale in screening children for learning disabilities and found it very useful and suitable.

Ikujuni (1995) reported that a high construct validity and a test – retest reliability coefficient of 0.86 was found when the instrument was revalidated on Nigerian population. Kanu (2004) conducted a pilot study using the scale in order to ascertain its suitability for screening learning disabilities in children and found a significant inter-item correlation co-efficient Alpha ranged between 0.70 and 0.90 and a reliability co-efficient of 0.74. For this current study, when the instrument was revalidated by the researcher, the Cronbach Alpha Reliability was 0.87. The corrected item total correlation estimated ranged between 0.70 and 0.90. These ensured the reliability of the instrument for the study.

3.5.3 Reading Comprehension Ability Screening Test (RCAST)

This instrument was adapted by the researcher to further screen students with learning disabilities for Reading Comprehension Ability Problems. The instrument was adapted from the students syllabus in English Language using the students' English Language Text books – *Intensive English Language Books 1 and 2* (African First Publishers Limited).

The screening test was constructed in two parts namely;

A – Personal Data: name, school, class, sex and age.

B – Reading aloud, pronunciation and use of words in sentences, identifying main ideas and looking for specific details in the passages.

The students were expected to read the two passages and demonstrate ability to identify relevant vocabularies in the passages by pronouncing the words correctly. The students were required to answer all the comprehension questions on the passages correctly.

Seven words underlined in each passage were to be identified by pronouncing them correctly and using them in correct sentences. Correct identification and pronunciation of the vocabularies attracted a maximum score of fourteen (14) marks. The

use of vocabularies in correct sentences also attracted maximum of fourteen (14) marks, while maximum of sixteen (16) marks were awarded for answering all the eight questions on each passage correctly. The total obtainable score was 44. A score of 22 was taken to be average while all scores from 21 and below were regarded as below average performance. All students that scored 21 and below participated in the study because these were the students identified as having reading comprehension problems through screening with Reading Comprehension Ability Screening Test (RCAST).

3.5.4 Reliability and Validity of Reading Comprehension Ability Screening Test (RCAST)

The Reading Comprehension Ability Screening Test was designed to detect students with reading comprehension problems. The face and content validity of this instrument was determined by giving it to experts and teachers of English language in Junior Secondary Schools (JSS) as well as learning disability experts in colleges of education. A further revalidation of this instrument was done through a test retest method using Cronbach Alpha. A reliability coefficient of 0.77 was arrived at. This shows the internal consistency and reliability of the reading comprehension ability screening instrument.

3.5.5 Reading Comprehension Skill Test (RCST) for Students with learning disabilities.

This instrument was developed by the researcher to assess the reading comprehension skills of students with learning disabilities in JSS 2. The Reading Comprehension Skill Test (RCST) was used as pre-test and post-test measures. The instrument was adapted from two literature text books; namely *Eze Goes to School and Things Fall Apart*. Only the prose narration of the two books were adapted. The questions on each passage were developed by the researcher. The test was constructed in four parts namely:

A - Personal Data, that is name, age, gender, father's occupation, mother's occupation, class, and so on.

B - Word recognition:

Ability of the students to recognize some of the underlined words in the comprehension passage and ability to pronounce them correctly.

C - Reading aloud for fluency:

Ability to read the passage fluently aloud and use vital words in short sentences to show understanding of meaning of the words.

D - Written comprehension that tasks the students to:

(i) Identify main ideas and specific details in the passages.

(ii) Demonstrate ability to answer correctly questions on the passage in written form.

Part B comprised twenty words taken from two short comprehension passages while Part C comprised ten words selected from the twenty words chosen in part B. In addition, the students were tested on the reading of the two comprehension passages. Part D tested the students' abilities on written comprehension by using five short answer questions and five short alternative-answer questions in each of the two comprehension passages.

In part B, a mark of twenty was awarded to each participant who identified all the twenty underlined words and pronounced them correctly. One mark was awarded for one word that was recognised and pronounced correctly. In part C, thirty marks were awarded to a participant who was able to use all the ten words in sentences correctly; that is, one and half marks were awarded for one word used correctly. For each participant that answered all the questions correctly in part D, the participant was scored twenty-five marks in each passage, that is, fifty marks were awarded for section D.

3.5.6 Reliability and Validity of the Reading Comprehension Skill Test

An initial readability test was conducted for the participants to show that the test is not too difficult nor too simple for them. To determine the face and content validity, the instrument was given to experts in the faculties of education and arts. The experts comprised two special educators, a psychologist, an evaluator and an English Language expert. The instrument was further subjected to empirical validation using a test-retest method at three weeks interval. The data gathered were used to compute the Cronbach Alpha for establishing the internal consistency and reliability. The Cronbach Alpha estimate was 0.79.

3.6 Procedure for the Study

One school was purposively selected from each of the three senatorial districts in Ogun State for the study. The three schools were among the biggest co-educational secondary schools in Ogun State. Each of the three schools had an average population of

250 secondary class II students. The class teacher in each school nominated students for the purpose of screening for learning disabilities.

3.6.1 Screening

The students nominated by the class teachers were screened for eligibility for learning disabilities using the "Pupils Rating Scale" (1981) revised. The actual screening was done by the class teachers who had knowledge of all related and required information about the students. The teachers were properly trained on the use of the pupils' rating scale before the commencement of the screening exercise. A further screening was done to identify students with reading comprehension problems using Reading Comprehension Ability Screening Test (RCAST).

3.6.2 Training of Research Assistants

The Research Assistants who were teachers of English Language in the two experimental secondary schools were trained prior to the commencement of treatment session. They were exposed to training for three days in a week with at least an hour for each meeting. This was necessary to enable them understand what they were supposed to do during the study. The research assistants were also exposed to class organization, lesson plan and methods of evaluating the participants for the study.

The procedure for the study was discussed with the teachers and their suggestions sought on how to effectively carry out the study along with their normal teaching.

3.6.3 Pre – Test Measure

The students were pre-tested with the "Reading Comprehension Skill Test for Students with Learning Disabilities" developed by the researcher. This was necessary to know the entry behaviour of the students and identify their level of performance on reading comprehension skill before treatment.

3.6.4 Step-by-Step Treatment Strategy

The participants in the experimental groups were exposed to treatments for eight weeks of three lessons per week using metacognitive and direct instruction strategies to teach the experimental groups one and two respectively. The control groups were also taught with the conventional method for the same number of weeks.

3.6.5a Experimental Group I – Metacognitive Strategies

Four comprehension passages were used in the lessons elaborately. The topics were broken down into smaller units to enable the students to grasp the strategy being used. The researcher fully demonstrated each lesson to the students and allowed them to

respond. The students were equally allowed to practice the use of metacognitive strategies in reading comprehension.

(i) The students were assisted to make plans and preparations for reading.

(ii) In the plan, the students were taught the need to set personal goal in reading comprehension.

(iii) Students think out what they need or want to accomplish when reading the passage.

(iv) Students were assisted to articulate clearly how to go about accomplishing the set goal.

(v) The researcher assisted the students to identify goal of mastering vocabularies in the passage.

(vi) Specific words were identified in the passage.

(vii) Specific strategies were introduced to the students.

(viii) The researcher model the use of strategy.

(ix) Students practice the use of strategy.

(x) Student identify important aspects of the passage.

(xi) Students were assisted to pay attention to specific details in the passage.

(xii) Students monitored specific details in the passage.

(xiii) Students with the assistance of the researcher monitored comprehension level by using:

(a) self-questioning

(b) self-evaluation

(xiv) Students repeat step (ix- xiii) several times.

3.6.5b Experimental Group II – Direct-Instruction

Four comprehension passages, as in metacognition strategies, were used, but with direct instruction strategy. The researcher, along with the research assistants demonstrated each lesson to the students and allowed them to respond.

(i) The researcher arranged, for easy interaction, sitting of students in a semi-circle round the researcher.

(ii) The researcher identified some vocabularies in the passage.

(iii) The teacher wrote these vocabularies on the chalkboard.

(iv) The researcher directed students' attention to the words written on the chalkboard.

(v) Students used guided practice of the identification of words as written on the board.

(vi) Students later used independent practice of the words.

(vii) The researcher collected feedback and gave necessary reinforcement.

(viii) The teacher teaches word recognition into mastery level by:

(a) calling on pupils to pick word cards and identify words written on the cards.

(b) writing dictated words on the chalkboard; and

(c) pronouncing words written by themselves on the chalkboard.

(ix) Students practiced reading aloud the comprehension passage repeatedly.

(x) The students did weekly practice and review of word recognition and reading the passage aloud.

(xi) Students were directed to relate the vocabularies to the content of the passage.

(xii) Students were assisted into discussions of passage read.

(xiii) The researcher wrote down simple questions on the passage and the students read the questions.

(xiv) The students were guided into answering the questions.

(xv) The students went into unguided practice using other comprehension passages.

3.6.5c Control Group – Conventional Method

Four comprehension passages were also used as in the experimental groups. The class teacher taught four comprehension passages by using the conventional method in line with his normal classroom teaching.

(i) Students read silently.

(ii) The teacher read aloud to the students hearing.

(iii) Students read aloud individually.

(iv) The teacher pronounced specific different words for the students.

(v) Students practice answering the questions on the passage orally.

(vi) Students later answered the questions in their exercise books.

(vii) The teacher repeated items (i– vi) using other comprehension passages.

3.6.6 Control of Extraneous Variables

The researcher adopted certain steps to prevent the incursion of extraneous variables into the study. The researcher strived as much as possible to minimize the influence of extraneous variable in the following ways:

One, different venues were used for the treatment and control groups. Two different schools namely, Baptist Grammar School, Ilaro and N.U.D. High School, Obantoko were used for the experimental groups and another school Methodist Comprehensive College, Sagamu was used for the control group. Each of the three schools is located in different senatorial districts of Ogun State.

Students who failed to enroll in the programme at the initial stage were not allowed to join mid-way. Moreover, the researcher was always around to oversee the teaching of the research assistants in order to avoid introduction of topics and ideas that were not included in the programme.

3.6.7 Post – Test Measure

The Reading Comprehension Skill Test (RCST) for JSS II students with learning disability was administered to the participants after treatment sessions. This was done for all the three groups.

3.7 Method of Data Analysis

Data collected were subjected to statistical analysis to determine the effectiveness of metacognition and direct instruction strategies on the reading comprehension skills of participants used in the study. Descriptive and inferential statistics were used in the analysis.

The descriptive statistics of mean and standard deviation were used. The inferential statistics of Analysis of Covariance (ANCOVA) for testing the significant difference among several means were used to analyze the data. ANCOVA was used because of its capacity to correct initial mean difference among three groups. Scheffe Post Hoc was used to establish the direction and the magnitude of treatment which was found to significantly affect the dependent variable (Reading Comprehension Skill). All the hypotheses were tested at probability level of 0.05.

CHAPTER FOUR

ANALYSIS AND RESULTS

4.1 Presentation of Results

This chapter presents the results of this study. The results are presented in the order in which the hypotheses were stated.

Hypothesis 1:

There is no significant main effect of treatments (metacognitive strategies and direct instruction) and conventional method on reading comprehension skill of students with learning disabilities.

Table 4.1.1: Descriptive Statistics on Treatment

Variables	Mean	SD	95% confidence interval	
			Lower Bound	Upper Bound
Metacognition	32.87	6.62	30.22	35.51
Direct Instruction	31.55	5.32	29.42	33.67
Control	25.60	7.86	22.46	28.75

Table 4.1.1 shows the descriptive statistics. Results of the analysis show that students in metacognitive strategies group had highest post achievement score ($\bar{x}$ = 32.87) in the reading comprehension skill test (RCST). This was followed by students in direct instruction group ($\bar{x}$ = 31.55), while students in the control group (conventional method) had the least performance ($\bar{x}$ = 25.60).

Table 4.1.2 presents the summary of Analysis of Covariance (ANCOVA) of the effects of treatments, gender and age on reading comprehension skills of students with learning disabilities. The table shows that the observed mean difference among the three treatment groups is statistically significant ($F_{(2, 62)} = 4.62$, $p < .05$, partial eta squared $\eta^2 = .130$). The table also shows that the effect size 13.0% of treatments on reading comprehension skills of students with learning disabilities was fair. The null hypothesis was therefore rejected. There was statistically significant main effect of treatment (metacognitive strategies, direct instruction and conventional method) on reading comprehension.

Table 4.1.2: ANCOVA of tests of between-subjects effects

Source of variation	Sum of squares	Df	Mean square	F	Sig.	Eta Sq.
Corrected Model	19045.087	12	1587.091	64.322	.000	.926
Intercept	349.669	1	349.669	14.172	.000	.186
Pretest	3805.578	1	3805.578	154.234	.000	.713
Treatments	227.945	2	113.927	4.619	.013*	.130
Age	1.513	1	1.513	.061	.805	.001
Gender	94.167	1	94.167	3.816	.055	.058
Treatment X Gender	66.577	2	33.289	1.349	.267	.042
Treatment X Age	8.303	2	4.152	.168	.846	.005
Gender X Age	86.897	1	86.897	3.522	.065	.054
Treatment X Gender X Age	187.040	2	93.520	3.790	.028*	.109
Error	1529.793	62	24.674			
Total	88255.000	75				
Corrected Total	20574.880	74				

In order to determine which group differs significantly among the three groups, Scheffe's post hoc test was carried out. Table 4.1.3 shows the results. The table shows that students in the metacognition and direct instruction differ significantly from students in the control group

Table 4.1.3: Scheffe Post hoc test

(I) treatment	(J) treatment	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Metacognition	Direct Instruction	1.320	1.529	.391	-1.735	4.376
	Control	7.260*	2.501	.005*	2.260	12.260
Direct Instruction	Metacognition	-1.320	1.529	.391	-4.376	1.735
	Control	5.940*	2.084	.006*	1.774	10.105
Control	Metacognition	-7.260*	2.501	.005*	-12.260	-2.260
	Direct Instruction	-5.940*	2.084	.006*	-10.105	-1.774

Note: * p < .05

Hypothesis 2:

There is no significant gender difference on reading comprehension skills of students with learning disabilities.

Table 4.1.4: Descriptive Statistics on Gender

Gender	Mean	SD	95% confidence interval	
			Lower Bound	Upper Bound
Males	31.16	6.62	29.58	32.73
Females	28.86	5.32	27.11	30.67

Table 4.1.4 shows that males had higher mean score ($\bar{x}$ = 31.16), than females ($\bar{x}$ = 28.86). However as table 4.1.2 (ANCOVA Summary) shows $F_{(1, 62)} = 3.82$ p > 0.05, the mean difference 2.30 is not statistically significant. There was no significant gender difference in the reading comprehension skills of students with learning disabilities. The effect size 5.8% was extremely small. The null hypothesis was therefore not rejected.

Hypothesis 3:

There is no significant age difference on reading comprehension skills of students with learning disabilities.

Table 4.1.5: Descriptive Statistics on Age

Gender	Mean	SD	95% confidence interval	
			Lower Bound	Upper Bound
Early Adolescents	30.15	5.08	28.38	31.92
Late Adolescents	29.86	5.04	28.31	31.41

Table 4.1.5 shows the descriptive statistics. Results of the analysis show that early adolescents had higher mean score than late adolescents. However, as table 4.1.2 (ANCOVA Summary) $F_{(1, 62)} = 0.06$, $p > 0.05$ shows, the mean difference of 0.29 is not statistically significant. There was no significant effect of age on reading comprehension skills of students with learning disabilities. The effect size 0.1% was extremely small. The null hypothesis was therefore not rejected.

Hypothesis 4:

There is no significant interaction effect of treatments and gender on reading comprehension skills of students with learning disabilities.

Table 4.1.6: Descriptive statistics on Interaction of Treatment and Gender

Gender	treatment	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Male	metacognition	33.703	1.693	30.318	37.088
	direct instruction	34.009	1.492	31.027	36.991
	control	25.753	1.775	22.205	29.302
Female	metacognition	32.028	1.635	28.759	35.297
	direct instruction	29.081	1.447	26.189	31.973
	control	25.457	1.991	21.478	29.437

Table 4.1.6 presents the summary of mean score and the standard deviation of students' achievement in reading comprehension using the interaction of treatment and

gender. However as table 4.1.2 (ANCOVA Summary) shows, the observed differences in the mean scores of male and female metacognition ($\bar{x}$ =33.70) and 32.03, male and female direct instruction $\bar{x}$ = 34.00 and 29.08 and the control group male and female; $\bar{x}$ = 25.75 and 25.46 are however not statistically significant, $F_{(2, 62)}$ = 1.35, p > 0.05. The hypothesis was therefore not rejected.

Hypothesis 5:

There is no significant interaction effect of treatments and age on reading comprehension skills of students with learning disabilities.

Table 4.1.7: Descriptive statistics on Interaction of Treatment and Age

Age	treatment	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Early Adolescents	metacognition	32.668	1.723	29.225	36.112
	direct instruction	31.566	1.587	28.393	34.738
	control	26.221	1.950	22.323	30.119
Late Adolescents	metacognition	33.063	1.596	29.872	36.254
	direct instruction	31.525	1.347	28.832	34.217
	control	24.990	1.816	21.359	28.620

Table 4.1.7 presents the summary of mean score and the standard deviation of students' achievement in reading comprehension using the interaction of treatment and age. However as table 4.1.2 (ANCOVA Summary) shows the observed differences in the mean scores are however not statistically significant $F_{(2, 62)}$ = 0.17; p > 0.05. Early and late adolescent metacognition means scores are 32.67 and 33.07 respectively. That of direct instruction early and late adolescents are also 31.57 and 31.53. The control group mean scores are 26.22 and 24.99 for early and late adolescent. Based on table 4.1.2 ANCOVA analysis and the means scores, the hypothesis was therefore not rejected.

Hypothesis 6:

There is no significant interaction effect of age and gender on reading comprehension skills of students with learning disabilities.

Table 4.1.8 presents the descriptive statistics. The table shows a marginal difference in the mean scores.

Table 4.1.8: Descriptive statistics on Interaction of Gender and Age

Gender	Age	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Male	Early Adolescents	32.405	1.162	30.084	34.727
	Late Adolescents	29.905	1.063	27.780	32.030
Female	Early Adolescents	27.898	1.337	25.226	30.569
	Late Adolescents	29.814	1.133	27.548	32.079

However, as table 4.1.2. (ANCOVA Summary) shows there is no significant difference in the mean scores of the participants when the interaction of age and gender were considered $F_{(1, 62)} = 3.52$; $p > 0.05$. The effect size of 5.4% is negligible. The hypothesis was therefore not rejected.

Hypothesis 7:

There is no significant interaction effect of treatments, gender and age on reading comprehension skills of students with learning disabilities.

Table 4.1.9: Descriptive Statistics on Interaction of Treatment, Gender and Age

Treatment	Gender	Age	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Metacognition	Male	Early Adolescents	33.682	2.257	29.169	38.195
Direct Instruction			37.435	2.225	32.987	41.882
Control			26.100	2.142	21.818	30.381
Metacognition		Late Adolescents	33.724	2.111	29.504	37.944
Direct Instruction			30.583	1.953	26.678	34.488
Control			25.407	2.192	21.026	29.788
Metacognition	Female	Early Adolescents	31.654	2.326	27.006	36.303
Direct Instruction			25.696	2.246	21.207	30.186
Control			26.342	2.765	20.815	31.870
Metacognition		Late Adolescents	32.402	2.044	28.317	36.487
Direct Instruction			32.466	1.776	28.916	36.016
Control			24.572	2.422	19.732	29.413

Table 4.1.9 presents the descriptive statistics showing that there are significant differences in the mean score of the participants when the interaction of treatment, gender, and age were put into consideration. However, as table 4.1.2 (ANCOVA Summary) shows that the observed mean difference is statistically significant $F_{(2, 62)} = 3.79$, $p < 0.05$, partial eta squared = .109. The effect size of 10.9% is moderate. The hypothesis was therefore rejected.

There is the need to disentangle the interaction since there is a significant difference in the mean scores. Therefore, graphs of the means scores of the students were plotted. Participants mean score as presented in Tables 4.1.9 were used to plot the graphs. These graphs are as shown in Figures 4.1 and 4.2.

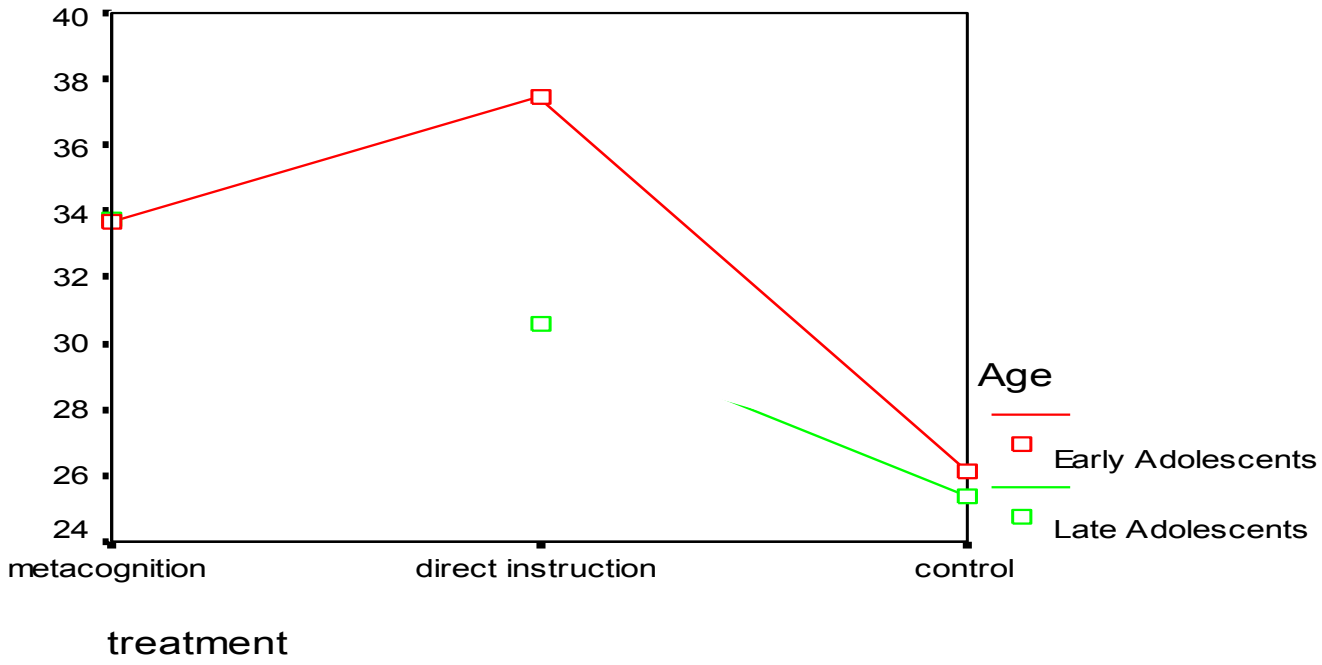


Figure 4.1 Interaction effect of treatment and age on reading comprehension of male adolescents with learning disabilities.

The estimated marginal means of post test show that early male adolescents profited more from direct instruction mode of teaching than late male adolescents. More importantly, conventional mode of teaching did not significantly improve students' achievement. Both early and late adolescents benefited equally from metacognition mode of instruction.

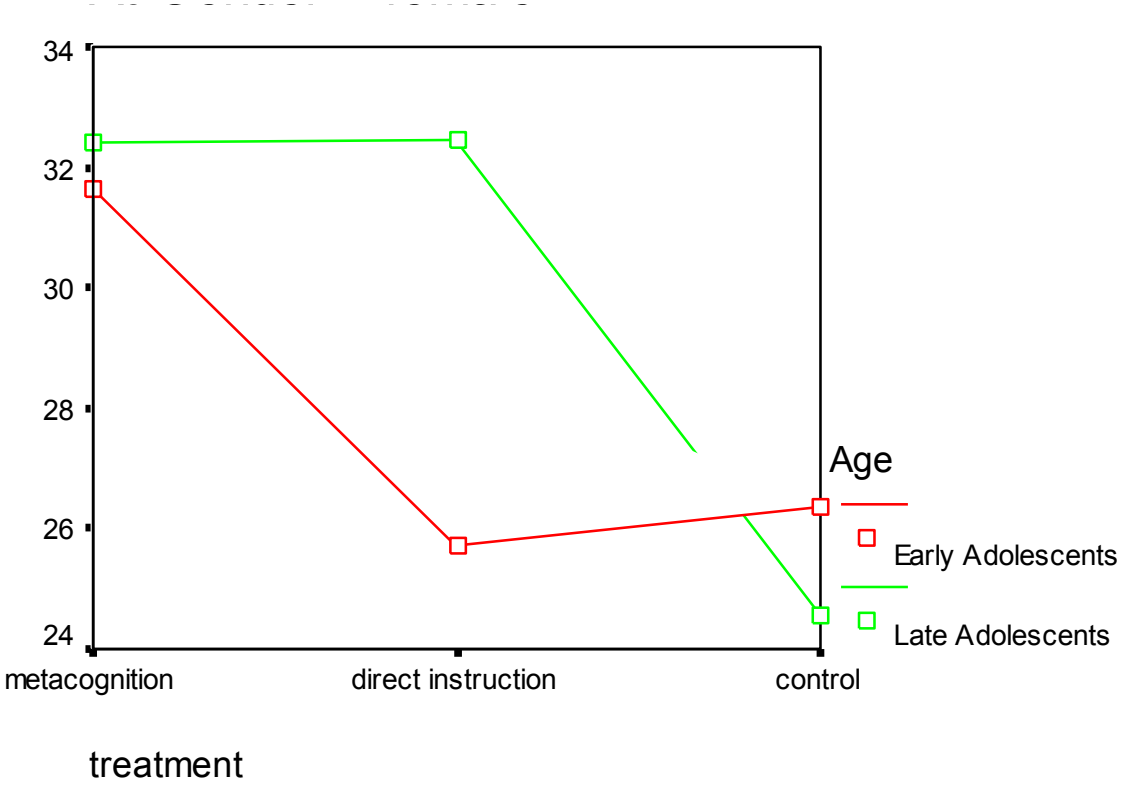


Figure 4.2: Interaction effect of treatment and gender on reading comprehension of female adolescents with learning disabilities

The estimated marginal means of post test show that female late adolescents benefited more from metacognition mode of instruction than female early adolescents. However, direct instruction method also appears to benefit female late adolescents. Conventional mode of instruction appears to be least beneficial to both early and late female adolescents.

4.2 Summary of Results

1. There was a significant main effect of treatments (metacognitive and direct instruction strategies) on reading compression skill of students with learning disabilities.
2. Those two experimental groups (metacognitive and direct instruction) proves more beneficial than the conventional method on reading comprehension.

3. There was no significant main effect of gender on reading comprehension skills of students with learning abilities.
4. There was no significant main effect of age on reading comprehension skills of students with learning disabilities.
5. There was no significant interaction effect of treatments and gender on reading comprehension skills of students with learning disabilities.
6. There was no significant interaction effect of treatments and age on reading comprehension skills of students with learning disabilities.
7. There was no significant interaction effect of gender and age on reading comprehension skills of students with learning disabilities.
8. There was significant interaction effect of treatments, gender and age on reading comprehension skills of students with learning disabilities.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter discusses the findings of this study. The educational implications, recommendations, suggestions for further research, and conclusion were also presented.

5.1 Discussion of Findings

Findings of this study showed that there was a significant main effect of treatments (metacognitive strategies, direct instruction and conventional method) on reading comprehension skill of students with learning disabilities. This finding supports earlier works of Wong and Chang (2004) and Menna (2004) that metacognition instruction ensures learners' maximum performance, and that knowledge is made explicit by clarifying the purpose of reading and the task ahead. When learners are taught to use metacognitive knowledge in their activities and with practice, this knowledge becomes internalized for the learners' cognitive development. Teaching and learning strategies in general have been proved to be valuable for improved performance, most especially in language learning (Carnine, Silbert, Kame'eniu and Tarver, 2004). Carnine et al (2004) contended that strategic training such as the use of metacognition in teaching students with learning disabilities can enhance both the process of language learning (the strategies or behaviours learners use and the affective elements involved) and the product of language learning (changes in students' language performance).

This finding is also in consonance with Rasekh and Ranjbary (2003) who found that metacognitive strategy training has significant positive effect on students reading comprehension skills. This finding further supported the conclusion of Anderson (2002) that the use of metacognitive strategy ignites the learners' thinking and does lead to higher learning and better performance.

The result from the study showed that metacognition is an effective teaching strategy. Further, the mean scores revealed that participants exposed to Metacognitive strategy exhibited far more appreciable treatment gains as against those in control group. This finding supports several studies in metacognitive instruction research. For instance, O'Malley, Chamot, Stewner, Mazanares, Russe, and Kupper (1995) concluded that metacognitive instruction provides the learner with the necessary direction. Chamot and O'Malley (1994) found a significant positive effect on the students' reading comprehension skills when metacognition method of teaching was used. The findings of

this study equally agreed with that of Anderson (2002); Wong and Chang (2004) which corroborated the significant positive effect of metacognition on reading comprehension skills. According to these authors, students performed better than those in control group because of their awareness and use of metacognitive strategy.

Further to the significant effect of treatment, direct-instruction was also found to be effective in teaching reading comprehension to students with learning disabilities. This finding supports other findings in literature Adams and Carnine (2003), Swanson, Harris and Graham (2003) show that direct instruction is an effective method of teaching reading skills to students with learning disabilities. The findings in both studies show that direct instruction has positive effects on students' performance in classroom setting. The findings of the current study corroborate the conclusion of Adams and Carnine (2002) that direct-instruction programme is among the most effective research- based methods of teaching reading skills to students with learning disabilities.

The reasons for the effectiveness of direct-instruction over the control (conventional method) may be due to the fact that direct-instruction curriculum is research based and undergo extensive testing before use. However, this study findings show that metacognitive instruction proves superior to direct-instruction method in view of its strategic training approach. The findings of this study therefore support the assertion of Kinnunen and Vaurus (1995) that the difference between good and bad readers is the awareness and use of metacognitive strategy. Proficient readers do execute one metacognitive strategy or the other as they read. They are capable of checking their own errors and monitor their own progress with little guidance from the teacher. Even though direct instruction also proves effective but it is more of total teacher directed method as against metacognitive method. This difference could have been responsible for the superiority of metacognition over the direct instruction.

The result presented in table 4.1.4 showed that there was no significant difference in the reading comprehension skills of male and female participants exposed to metacognition, direct-instruction and those in the control group. This means that gender has no main effect on the reading comprehension skill of the participants. This finding contradicts general findings from previous related studies on reading comprehension. For example, Krussen (1990) and Olokesusi (2003) observed that girls have higher attainment than boys in reading skills. Shonibare (1990), Fetuga (1993) and Dada (2003) discovered from their studies that males and females learn at different rates and that

females performed better in reading skills. However, none of these studies used metacognition and direct-instruction in their studies. This appears to be the reason for the difference.

On the other hand, the finding of this study supported that of Brown and Campaione (1996), Collins, Brown and Newman (1999) that indicated no significant difference in the performance of male and female students with learning disabilities when exposed to combined metacognition and direct - instruction method in reading comprehension.

Even though the result of the current study shows that there is no significant gender difference in the performances of male and female students, however, males perform better with higher means score compared with the females. This insignificant gender difference may be due to the multidimensional nature of learning disabilities and the implication for males and females.

The third finding of the study also shows that age has no significant main effect on the reading comprehension skills of the participants. Many of the findings in learning disabilities research recognise that learning disabilities become apparent at different stages of life, most especially at the various levels of adolescence stage when the problem manifests in different forms at each level. Lerner (1997) indicated that majority of students with learning disabilities fall between the age range of 10 and 15 years whereas the number decreases sharply from ages 16 and 21. Bailey and Wolery (1992) believed that the decrease in the number of students with learning disabilities in late adolescence may be due to the large number of dropouts among adolescents with learning disabilities in this stage.

The result presented in tables 4.1.5 and 4.1.7 showed that there was no significant difference in the reading comprehension skills of participants in early and late adolescence exposed to metacognitive and direct instruction. Lerner (1997) stated that a dropout rate is high at the late adolescence stage and this affects the number of students with learning disabilities within the late adolescence group. The findings of this study supported Lerner's contention that some late adolescents tend to overcome their learning disabilities and are able to reduce them or have learnt how to compensate or circumvent their problems, using relevant learning strategies. However, the difference in the performance among the early and late adolescence was not statistically significant.

Furthermore, there is no two-way interaction effect of treatment and gender, treatment and age as well as gender and age on the reading comprehension skills of the participants. This shows that irrespective of age and gender, student can do well in reading comprehension if they are provided with adequate teaching methods. The findings of this study therefore support the contributions of Lerner (1997) and Ikujuni and Kanu (2003) on the use of specialised teaching methods for students with learning disabilities.

Finally, there is a significant interaction effect of treatment, gender and age. When these 3-way interaction effect were put into consideration, there were significant differences in the means score of the participants.

5.2 Conclusion

This study examined the effect of metacognition and direct-instruction in enhancing reading comprehension skills of students with learning disabilities. Metacognition instruction has been found to be more effective in teaching reading comprehension skills to students with learning disabilities. Metacognition instruction proves more superior to direct-instruction. The study revealed a significant difference in the reading comprehension skills of participants treated with metacognition and those in direct- instruction. However, the two methods have been found to be effective in improving the reading comprehension skills of students with learning disability. Both methods prove superior over the conventional method of teaching reading comprehension to students with learning disabilities. Reading comprehension is synonymous with literacy, a very reliable vehicle for relating with one's environment. Deficit in reading comprehension will affect the totality of learning output, most especially the performance in terms of assessment. The quality of education may be marred by serious deficit in reading comprehension.

5.3 Implications of the Findings

The findings of this study have certain far-reaching implications. It is evident from the result that metacognition and direct-instruction methods were found effective in enhancing the reading comprehension skills of students with learning disabilities. The study, therefore, has lots of implications for teachers handling students with learning disabilities, special educators, educational psychologists, school counsellors, school administrators, parents, and government at the local, state and federal levels.

The metacognitive and direct-instruction teaching programmes developed in this study could be used to enhance the reading comprehension skills of students with learning disabilities at all levels of education. This study has revealed that the two teaching methods can enhance the deficits in reading skills of students with learning defects, however, metacognition was found to be more effective in improving the reading comprehension skills of students with learning disabilities.

The implication of the findings for learning disability specialists, special educators and learning psychologists is that this research should be explored to open a new orientation using necessary resource materials which can serve as a foundation to build new knowledge. Reading comprehension skill is a vital area in learning disabilities in view of its encompassing nature. There is, therefore, the need to develop effective intervention programmes to assist persons with learning disabilities in all subject areas. Reading comprehension is not limited to language learning but permeates all areas of classroom subjects, including natural sciences. When students fail to comprehend what they read, then reading become useless and learning fails to occur. This study, therefore, has far-reaching implication for all stakeholders in the field of education, including education agencies, ministries of education as well as both public and private schools. They should all put in place a machinery that will assist learners with learning disabilities most especially Junior Secondary School Students.

5.4 Recommendations

On the whole, government, teachers and parents should work together to provide the necessary enlightenment that will promote positive feelings for the identification and education of students with learning disabilities as a special group, more so when students with learning disabilities share the same classroom with their normal class mates. This is inclusive education which is currently been promoted in the school system. Therefore, parents in particular should be encouraged to make adequate contributions and have positive expectations towards their children with learning disabilities. The parents should be trained to understand the areas of weakness of the students and their needs.

Teachers should be well informed on the need for identification, assessment and referral of students with learning disabilities in their regular classrooms to specialists as early as the disabilities are observed. In this way, appropriate remediation can be provided for students with learning disabilities promptly.

5.5 Contributions to Knowledge

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

The study has shown that students with learning disabilities in the area of reading comprehension skills can be assisted and their abilities modified with the use of appropriate teaching methods like metacognition and direct-instruction.

The study has also revealed the effectiveness of metacognition and direct-instruction methods in enhancing reading comprehension skills of students with learning disabilities.

The Reading Comprehension Test for Students with Learning Disabilities designed by the researcher can be used by other researchers to test and enhance the reading comprehension skills of students in Junior Secondary School classes.

The study further revealed that metacognition is better compared to direct – instruction in enhancing the reading comprehension skills of both early and late adolescents with learning disabilities.

5.6 Limitations of the Study

The study has some limitations. The study is limited because not much work has been done in the area of the application of metacognition and direct-instruction to children with learning disabilities. It was a difficult task for the researcher to collect relevant materials on previous researches done in metacognition and direct-instruction using students with learning disabilities.

This study is also limited by the number of participants and schools used because of the nature of the participants. Future replication of the study may adopt survey research method to accommodate a larger body of participants, schools and settings.

5.7 Suggestions for Further Studies

There is the need to replicate this study with a larger population and in other states of Nigeria. The study was carried out among students with learning disabilities in the Junior Secondary school class two. A similar study can equally be carried out among children with learning disabilities in primary or senior secondary school classes.

Other teaching methods can be used to investigate their effectiveness in enhancing reading comprehension skills. In addition, this study used metacognition and direct -

instruction separately in the two experimental groups. Future study can combine both metacognition and direct-instruction as intervention strategies in only one experimental group. The implication is that further research work may widen the scope of this study by combining both metacognition and direct instruction strategies in enhancing reading comprehension skills of students with learning disabilities.

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APPENDIX I

TREATMENT PACKAGE FOR METACOGNITION

WEEK ONE/LESSON ONE

Topic: Reading Comprehension: Obika

Ref Book: Intensive English BK 2 pp. 26-27

Behavioural Objectives:

i. Students should be able to set for themselves articulated goals using the teacher's example in the reading comprehension passage.

ii. Students should be able to identity the difficult vocabularies in the comprehension passage.

iii. Students should be able to pronounce the difficult vocabularies identified.

Teaching Aids / Materials:

Pupils text books, word cards and prepared typewritten copies of the comprehension passage.

STEPS:

Step I: The teacher explains to the students the need to set personal goals in reading comprehension.

Step II: The teacher assists the students to think out what they need or want to accomplish when reading the passage.

Step III: He/she will promote this reflection in step II by being explicit about the set goal.

Step IV: The teacher will assist the students to articulate clearly how to go about accomplishing the set goal.

Step V: The teacher assists students to identify goal of mastering the vocabularies in the passage.

Step VI: The teacher and the students will identify unfamiliar vocabularies in the passage and put them on the board.

Step VII: Students will practise the meaning and pronunciation of the vocabularies identified. The teacher will correct the students' errors.

Exercises: Students will be given assistance using the following questions:

i. Can you repeat what you have learnt in this lesson?

ii. What are the things you need to do in a reading comprehension passage?

iii. How would you pronounce the vocabularies on the chalkboard?

Reinforcement: Students who performed excellently are commended and praised.

WEEK ONE/LESSON TWO

Topic: Reading Comprehension: Obika

Ref. Book: Intensive English. Bk. 1pp.26-27

Behavioural Objectives:

i. Students should be able to set for themselves articulated goal using the teacher's example.
ii. Students should be able to identify the difficult vocabularies in the comprehension passage.
iii. Students should be able to pronounce the difficult vocabularies identified: comeliness, golden, sojourned, fiery, injury, ruins, brave, fearless, murder and swollen.

Teaching Aids / Materials: Pupils textbooks, word cards and prepared typewritten copies of the comprehension passage.

STEPS:

Step I: The teacher repeats the previous lesson.

Step II: The teacher will lead the students to think out what they need or want to accomplish when reading the passage.

Step III: The teacher will assist the students to articulate clearly how to go about accomplishing the set goal.

Step IV: The teacher leads the students to re-identify those words that are unfamiliar and students pick them on the word cards and write them on the board.

Step V: The teacher will assist the students to repronounce the words correctly and individually.

Exercises: The students will be asked to do the following:

i. List out five difficult words in the passage.
ii. Pick up the words you have listed from the word cards.;
iii. Write the words on the board.
iv. Think out other words that you find difficult to pronounce
v. Write out those difficult words and attempt to pronounce them.
vi. Ask yourself if you need the teacher's help.
vii. Raise your hand and ask for the teacher's assistance

Reinforcement: Students are collectively commended by the teacher.

WEEEK ONE/LESSON THREE

Topic: Reading Comprehension: Obika, vocabularies building, using words in sentences

Ref. Book: Intensive English BK. 1Pp26-28

Behavioural Objectives:

i. Students should be able to pronounce and use the unfamiliar vocabularies in simple sentences of their own.

ii. Students should be able to master the use of these vocabularies as they appear in the text.

Teaching Aids/materials:

Word pronunciation cards, portable B/B and prepared comprehension passage sheets.

STEPS:

Step I: The teacher goes over steps I – IV of the previous lesson as revision.

Step II: The teacher will assist the pupils to discuss the meaning of those vocabularies as they are used in the passage.

Step III: The teacher writes good sentences and statements of the students on the board for them to read individually.

Step IV: The teacher will assist the students to look for more vocabularies of interest in the passage.

Step V: The teacher and the students will discuss the following vocabularies together: fine-cut, inflicted, praiseworthy, dared and brooding

Exercise: Students are encouraged to read over the passage more at home.

Reinforcement: The teacher will commend the students' efforts on individual basis.

WEEK TWO/LESSON ONE

Topic: Reading Comprehension: Revision on guided vocabulary mastery.

Ref. Book: Intensive English BK. 1 Pp26-28

Behavioural Objectives:

(i) The students should be able to scan through and survey materials presented to them.

iii. The students should be able to use scanning and surveying as strategies in metacognition to identify vocabularies in the passage.

Teaching Aids/Materials: Prepared comprehension passage on sheets of paper distributed to the students.

STEPS:

Step I: The teacher will distribute one of the two prepared sheets to the students.

Step II: The teacher explains what surveying and scanning techniques are all about.

Step III: The teacher will model for the students on scanning and surveying using the passage.

Step IV: Students scan through the passage as a practice.

Step V: The teacher assists the students to practise individually scanning and surveying techniques using the passage.

Exercises: Students are encouraged to read over the passage more at home.

Reinforcement:

i. The teacher asks students to scan through paragraph one to identify more difficult words

ii. The teacher asks students to survey the whole passage for words that describe the man, Obika.

Students with encouraging responses are given public approval and praises in the class – room. Others are encouraged to imitate their good examples.

WEEK TWO / LESSON TWO

Topic: Guided practice on Reading Comprehension: Search for main ideas.

Ref. Book: Intensive English BK 1 pp26-27

Behavioural Objective: Students should be able to read the passage, and identify main ideas using techniques of word analyses and context – clues modeled by the teacher.

Teaching Aids/Materials: Students' English Text Books.

STEPS:

Steps I: Teacher explains to students what word analyses are all about.

The teacher has given examples from the students' text.

Step II: Students practise examples of prefix and suffix to analyse the meaning of some unfamiliar words in the passage.

Step III: The teacher explains to the students what context clues are all about.

Step IV: Students locate specific context clues and explain their relevance to the passage.

Step V: The teacher reads over the passage to the hearing of the students.

Step VI: Students read and reread the passage to locate their context clues and word meanings in the passage as done earlier by the teacher.

Step VII: The teacher assists the students to identify main ideas in the passage.

Step VIII: The teacher picks each of the two techniques using it to identify main ideas in the passage.

Step IX: The students follow the teacher's examples and practise the use of word analyses and context – clues to search for main ideas in the passage.

Exercises:

i. Students repeat what they have learnt in the lesson
ii. Students mention the main ideas in the passage read

Reinforcement: Students receive one pencil each

WEEK TWO /LESSON THREE

Topic: Reading Comprehension – Obika: further learning strategy

Behavioural Objective: Students will master the metacognitive techniques of locating and rereading critical parts of a comprehension passage and suggesting relevant titles for the passage about "Obika".

Ref: Book: Intensive English Bk. 1 Pp 26 – 27.

Teaching Aids/Material: Student English Textbooks

STEPS:

Step I: The teacher assists the students to read silently and later to, read aloud individually.

Step II: The teacher models locating critical areas of the passage.

Step III: Students locate more of these critical areas and read aloud to the group.

Step IV: Students use previously learnt strategies such as world-analysis, context clues e.t.c. along with re-reading critical areas of the passage.

Step V: The teacher assists the students to suggest as many relevant titles as possible on the passage.

Step VI: He/she writes the suggested titles on the board.

Step VII: Students read over the suggested titles and select the most relevant ones.

Exercises: The teacher asks the students to comment on each title suggested on the content of the passage.

Reinforcement: Students receive praises for good performance.

WEEK THREE/LESSON ONE

Topic: Reading Comprehension (Advances in Modern Medicine): Extensive Vocabulary mastery, using words in sentences and vocabulary building.

Ref. Book: Intensive English Bk. 2. Pp 3 and 38.

Behavioural Objective:

i. The students should be able to read and master the use of the identified vocabularies in the passage.
ii. The students will master self-monitoring strategy as they use the words in sentences.

Teaching Aids/Materials:

i. Students textbooks
ii. Word cards

STEPS:

Step I: The teacher will revise with the students previously learnt strategies.

Step II: With the new passage to be read, the teacher assists the students to select appropriate learning strategies.

Step III: The teacher will assist the students to read over the passage and re-read the critical parts of the passage.

Step IV: The students will identify difficult vocabularies and note how they are used in the passage.

Step V: Students will also be assisted in suggesting relevant titles for the passage.

Step VI: Students will read the questions in the passage.

Step VII: Students will be assisted to monitor their comprehension of the passage using the vocabularies identified earlier in the passage.

Exercises: The teacher leads the students to answer the following questions:

i. What is the purpose of reading the passage?
ii. What do you know about the passage?

Reinforcement: Students receive praises for good performance.

WEEK THREE/LESSON TWO

Topic: Reading Comprehension (Advances in Modern Medicine): Guided vocabulary building and mastery.

Ref. Book: Intensive English Bk. 2 pg 3.

Behavioural Objectives:

i. The students should be able to master additional vocabularies in the passage.
ii. The students should be able to monitor their own comprehension of the passage.

Teaching Aids/Materials.

1. Students textbooks
2. Portable board

STEPS:

Step I: The teacher assists the students to read the passage and re-read the critical parts of the passage.

Step II: The teacher and the students will go over the previously taught learning strategies such as scanning, surveying, contest-clues and word analysis.

Step III: The teacher leads the students to identify more vocabularies in the passage.

Step IV: The teacher writes the vocabularies on the chalkboard.

Step V: The students will think out the relevance of the vocabularies to the passage.

Step VI: The students are assisted to:

i. Suggest titles for the passage
ii. Provide a summary of the passage
iii. Look for the main idea in the passage

Step VII: The teacher will write four to five items of the comprehension monitoring check list on the board for students to read.

Step VIII: Students will practise using each of the items on the checklist in order to monitor any comprehension failure.

Exercises: The teacher asks the students to explain the relevance of these words to the passage – match, filter, paralysed and complicated.

Reinforcement: The teacher distributes one small exercise book each to the students.

WEEK THREE LESSON THREE

Topic: Reading Comprehension (Advances in Modern Science): Guided reading comprehension.

Ref. Book: Intensive English Bk 2. Pp 38-39

Behavioural Objective:

i. The students should be able to read the passage.

ii. The students should be able to answer the questions in the passage as a way of monitoring their own comprehension

Teaching Aids/Materials: Pupils textbooks and word cards.

STEPS:

Step I: The teacher will assist the students to read through the comprehension passage.

Step II: Students will be reminded of the need to check comprehension failure.

Step III: The teacher and the students will go over the comprehension-monitoring checklist as a means of checking comprehension failure.

Step IV: The teacher will assist the students to use the comprehension self-monitoring checklist to answer few questions in the passage.

Step V: Students will be assisted to locate area(s) of difficulties in the passage.

Step VI: The students will re-read the critical parts of the passage and answer questions in those areas.

Exercise: The teacher will help the students answer the following questions:

i. What do I know about this passage?

ii. What else do I need to know in the passage?

Reinforcement: All the students will be commended for their contribution.

WEEK FOUR/LESSON ONE

Topic: Comprehension Exercise: Guided and unguided comprehension exercise.

Teaching Aids/Materials: Students textbooks and portable chalk board.

Ref. Book: Intensive English Bk. 2 pp. 4-5.

Behavioural objective:

i. The students should be able to select strategies that work well in dealing with the comprehension exercise.

ii. The students should be able to orchestrate their strategies.

STEPS:

Step I: The teacher explains to the students the need to use comprehension strategies in reading.

Step II: The teacher and the students identify the various available strategies for effective comprehension.

Step III: The teacher hangs on the board the prepared guided comprehension exercise.

Step IV: Students are assisted to adopt orchestrated strategies to select correct answers.

Step V: The teacher will read together with the students the passage on pp.4-5 of the textbook under unguided comprehension.

Step VI: The teacher assists the students to practise a reading comprehension exercise using the passage on pp.4-5

Exercises: The students repeat orally the exercise on pp 4-5.

Reinforcement: The students will be commended for their efforts.

WEEK FOUR/LESSON TWO

Topic: Revision Exercise on reading comprehension: identifying and mastery of vocabularies.

Ref. Book: Intensive English BK. 2 pp. 50-51

Behavioural objective: Students should be able to identify on their own specific vocabularies and practise the use of such vocabularies.

Teaching Aids/Materials: Textbooks and word cards.

STEPS:

Step I: The teacher revises the previous lesson with the students

Step II: The teacher will assist the students to practise the use of:

i. Looking for main ideas
ii. Summarising the passage read

Step III: The students will go over the comprehension passage identifying specific points stated in the passage.

Step IV: The teacher will assist the students to practise comprehension monitoring of the passage using the checklist studied earlier.

Step V: Students will be assisted to suggest various related titles for the passage.

Exercise: The teacher will ask the students to do the following orally:

i. Find out the vocabularies that point to the main ideas in the passage.

ii. Read out how the vocabularies are used in the passage.

Reinforcement: The teacher invites outstanding students to shake hands with him/her in front of the class.

WEEK FOUR/LESSON THREE

Topic: Reading comprehension passage "Voting": Further revision exercise on vocabulary building and guided summary of the comprehension passage read.

Behavioural Objectives: The students should be able to practise vocabulary building and guided summary of the comprehension passage read.

Ref. Book: Intensive English Bk. 2pp. 50-51.

Teaching Aids/Materials: Textbooks and word cards.

STEPS:

Step I: The teacher and the students go over the various strategies that were previously listed and studied.

Step II: The teacher explains to the students that all the strategies are good on their own but at times any one of them can fail to bring successful comprehension.

Step III: The teacher will explain further that there is, the need to evaluate how and what strategies we use regularly.

Step IV: The teacher will help the students evaluate their previously used strategies by responding to the following questions put on the board:

i. What am I trying to accomplish?
ii. What strategies am I using?
iii. How well am I using them?
iv. What else could I do?

Step V: Students will be made to use these questions to guide them as they read the comprehension passage titled – "Voting".

Step VI: The teacher explains further the advantages of these four questions and how they relate to reading comprehension.

Exercises:

i. The teacher directs the students to page 51 of their text books.
ii. The teacher asks the students to survey and scan through the exercise.

iii. The teacher asks the students to note relevant vocabularies that fit into the missing spaces.

iv. The teacher asks the pupils to do the exercise orally.

Reinforcement: The teacher distributes one eraser to each of the students for their good performance.

WEEK FIVE/LESSON ONE

Topic: Reading Comprehension: Practice in vocabulary building

Behavioural Objective: The students should be able to identify and pronounce the vocabularies selected in the passage.

Ref Book: Intensive English Book 2 p. 52.

Teaching Aids/Materials: Textbooks and word cards.

STEPS:

Step I: The teacher will go over materials learnt in the previous lesson.

Step II: Students will enumerate on the usefulness of preparing and planning and how best these can be done.

Step III: The teacher and the students will discuss comprehension monitoring and the checklist for detecting comprehension failure.

Step V: Students will be presented a comprehension passage to practise using metacognition

Step VI: The teacher writes the following on the board:

Foul, rigging, politician

Brand, democratic, free and fair

Bride, presents, beneficial

Thumb, malpractice, squandering

Ballot, education, weapons

Exercises: The students will be assisted to relate each word in step VI to the passage.

Reinforcement: The teacher distributes one eraser to each of the students for their good performance.

WEEK FIVE/LESSON TWO

Topic: Reading comprehension: practice in vocabulary building.

Behavioural Objective: The students should be able to identify and pronounce the vocabularies selected in the passage.

Teaching Aids/Materials: Portable chalkboard.

STEPS:

Step I: The teacher hangs the portable chalkboard containing the following:

Foul, rigging, politician

Brand, democratic, free and fair

Bride, presents, beneficial

Thumb, malpractice, squandering

Ballot, education, weapons

Step II: The teacher assists the students to repeat what was done in the last lesson.

Step III: The students read directly from their textbooks the use of the words in the passage.

Step IV: The teacher writes the sentences on the board

Step V: The teacher makes similar sentences with each word.

Step VI: The students will be assisted to make similar sentences on their own.

Step VII: The teacher corrects the students' wrong expression and writes the correct ones on the board.

Step VIII: Students read over the correct sentences written on the chalkboard.

Exercise: The teacher assists the students to make more correct sentences with the words.

Reinforcement: The students will receive words of commendation for active participation.

WEEK FIVE / LESSON THREE

Topic: Reading Comprehension: Unguided questions and answers in oral form.

Behavioural Objective: The students should be able to answer five unguided questions orally.

Ref. Book: Intensive English Bk. 2 p. 52.

Teaching Aids/Materials: Portable chalkboard.

STEPS:

Step I: The teacher reads over the passage twice to the hearing of the students.

Step II: The students read the passage silently on their own.

Step III: The students are allowed to read aloud individually

Step IV: The students decide on their own learning strategies for comprehending the content of the passage.

Step V: Students go into collective self-questioning strategy

Step VI: The teacher asks the students to monitor their comprehension using the following questions:

1. What is the passage about?
2. What should the electorate be educated on?
3. List three things that the electorate should know.

Step VII: The teacher corrects the students errors.

Exercises: The teacher asks the following questions from the students:

i. What happened in 1979 election?

ii. What is usually the consequence of not educating the electorate on voting procedures?

Reinforcement: The teacher distributes one exercise book each to the best three student participants.

WEEK SIX / LESSON ONE

Topic: Reading Comprehension: The Trial.

Behavioural Objective:

i. The students should be able to identify the difficult words in the passage.

ii. The students should be able to pronounce the difficult words correctly.

Ref. Book: Intensive English Bk. 2 p. 99

Teaching Aids/Materials: Students textbooks and word cards.

STEPS:

Step I: The teacher directs the students to page 99 of their books.

Step II: The teacher explains the first thing the students should take note of.

Step III: The students mention the title of the passage.

Step IV: The teacher assists the students to suggest meaning to the title using the picture on the page.

Step V: The teacher assists the students to scan through the passage for difficult words.

Step VI: Students identify the difficult words.

Step VII: The teacher writes the difficult words on the chalkboard.

Step VIII: The teacher will pronounce the difficult words one after the other.

Step IX: The students follow the teachers' examples one after the other.

Step X: The teacher brings out the word cards and each student takes one word-card and pronounces the word on it.

Exercise: The teacher drills the students on the pronunciation of the difficult words.

Reinforcement: The teacher gives one small eraser to each of the student participants in the group**.**

WEEK SIX / LESSON TWO

Topic: Reading Comprehension: "The Trial"

Behavioural Objectives:

i. The students should be able to pronounce the words correctly

ii. The students should be able to use the words in correct sentences

Ref. Book: Intensive English Bk. 2 p 99

Teaching Aids/Material: Students textbook and word cards.

STEPS:

Step I: The teacher repeats the last lesson with the students.

Step II: The teacher assists the students to think out loudly on the approach to getting the meaning of the difficult words.

Step III: The teacher assists the students to use the techniques of word combination, word relations, context clues, prefix and suffix and so on.

Step IV: The students identify the following words from the word cards placed on the table:

wooden, bench, court, trial

magistrate, cold-blooded, strictness

bailed, constable, witness box

guilty, whiplash

Step V: The teacher assists the students to check the use of each word as used in the passage.

Step VI: The students read out the passage and think aloud on the uses of the words using self-questioning method.

Step VII: The students attempt using the words in sentences of their own.

Step VIII: The teacher corrects the students' sentences and writes them on the chalkboard.

Step IX: Students read the correct sentences.

Exercise: The teacher asks the students to look for more difficult words and note how they are used in the passage.

Reinforcement: The teacher commends the effort of all the students and praise the most active three students in the lesson.

WEEK SIX / LESSON THREE

Topic: Reading Comprehension: "The Trial"

Behavioural Objectives:

i. The students should be able to use the difficult words in simple sentences

ii. The students should be able to answer the six alternative questions in the passage.

Ref. Book: Intensive English Bk. 2 pp 99- 100

Teaching Aid/Material: Student text books and portable chalkboard.

STEPS:

Step I: The teacher repeats the last lesson with the students

Step II: The students use the difficult words in short sentences of their own.

Step III: The teacher and the students go into summary discussion of the passage.

Step IV: The teacher engages the students in an oral comprehension exercise.

Step V: The teacher encourages the students to raise self-designed questions on the passage.

Step VI: The students ask questions and provide answers on their own.

Step VII: The teacher assists the students to correct their sentences.

Step VIII: The teacher will assist the students to pronounce and read through all the words and see how they are used in the passage.

Exercises: The teacher finally hangs the portable board containing the following questions for the students to answer:

1. Where is the Black Maria standing?
2. What is in the Black Maria?
3. Who is Dirisu?
4. Why was Dirisu feared?
5. What offences did Aina commit?

6. Did Aina plead guilty?
7. What penalty was awarded to Aina?

Reinforcement: The teacher commends students that participated actively in the oral exercise.

WEEK SEVEN/LESSON ONE

Topic: Reading Comprehension: "One-Eyed Sunday"

Ref. Book: Intensive English Bk. 2. Pg 120

Behavioural Objectives:

i. The students should be able to identify the difficult words in the passage.
ii. The students should be able to pronounce the difficult words correctly

STEPS:

Step I: The teacher directs the students to page 120 of their books

Step II: The teacher explains to the students the first thing they must take note of,

Step III: The students identify and mention the title of the passage.

Step IV: The teacher assists the students to suggest meaning to the title using the picture on the page.

Step V: The teacher assists the students to scan through the passage for difficult words.

Step VI: The students identify the difficult words.

Step VII: The students identify the difficult words on the chalkboard.

Step VIII: The teacher will pronounce the difficult words one after the other.

Step IX: The students follow the teacher's examples one after the other.

Step X: The teacher brings out the word cards and each student takes one word-card and pronounces the word on it.

Exercises: The teacher drills the students on the pronunciation of the difficult words.

Reinforcement: The teacher gives one small eraser as a token to each of the participants in the group.

WEEK SEVEN/LESSON TWO

Topic: Reading Comprehension: One-Eyed Sunday

Behavioural Objectives:

i. The students should be able to pronounce the words correctly.

ii. The students should be able to use the words in correct sentences, so as to show that they understand the meaning of the words.

Ref. Book: Intensive English Bk. 2 p.120

Teaching Aids/Material: Students textbooks and word cards.

STEPS:

Step I: The teacher repeats the last lesson with the students.

Step II: The teacher assists the students to think out loudly on the approach to getting the meaning of the difficult words.

Step III: The teacher assists the students to use the techniques of word combinations word relations, context-clues, prefix and suffix and so on.

Step IV: The students identify the following words from the word cards placed on the table:

Startled, rumour, puckered up

Threatened, contempt, authoritatively

Way-ward, dreadful, frightened, glance

Step V: The teacher assists the students to check the use of each word as used in the passage.

Step VI: The students read out the passage and think aloud on the uses of the words using self-questioning method.

Step VII: The students attempt using the words in sentences of their own.

Step VIII: The teacher corrects the students' sentences and writes them on the chalkboard.

Step IX: Students read the correct sentences.

Exercises: The teacher asks the students to look for more difficult words and note how they are used in the passage.

Reinforcement: The teacher commends the efforts of all the students and praises the most active three students in the lesson.

WEEK SEVEN/LESSON THREE

Topic: Reading Comprehension: One-Eyed Sunday

Behavioural Objectives:

i. The students should be able to use the difficult words in simple sentences.

ii. The students should be able to answer the six alternative questions in the passage.

Ref. Book: Intensive English Bk. 2. Pg. 120

Teaching Aids/Material: Students textbooks and portable chalkboard.

STEPS:

Step I: The teacher repeats the last lesson with the students.

Step II: The students use the difficult words in short sentences of their own.

Step III: The teacher leads the students into a summary discussion of the passage using self---questioning.

Step IV Students engage in self-oral comprehension exercise.

Step V Students will be encouraged to raise self-designed questions on the passage.

Step VI The students ask questions and they provide answers on their own.

Step VII The teacher assists the students to correct their sentences.

Exercises: The teacher finally hangs the portable board containing the alternative questions for the students to answer.

Reinforcement: The teacher commends students for participating actively in the oral comprehension exercises.

WEEK EIGHT/LESSON ONE

Topic: Reading comprehension: The Treatment of Nigerian Journalists".

Behavioural Objectives:

i. The students should be able to identify the difficult words in the passage

ii. The students should be able to pronounce the difficult words and use them in correct sentences to show they understand their meaning.

Ref. Book: Intensive English Bk. 2 Pg. 180 – 191.

Teaching Aid/Material: Student textbooks, word cards and Newspapers.

STEPS:

Step I: The teacher directs the attention of the students to the passage.

Step II: The teacher reminds the students of the first action to take in a reading comprehension exercise.

Step III: The students identify the topic of the passage.

Step IV: Students take note of the words used in the topic such as treatment, Nigerian, Journalists.

Step V: Students scan through the passage and identify unfamiliar words.

Step VI: Students read quickly over the passage silently on their own.

Step VII: The teacher allows the students to go into self-questioning to discover some points and ideas hidden in the passage.

Step VIII: Students ask such questions as:

What does journalist mean?

Who is a Nigerian?

What are editorials?

Step IX: In the process of self-questioning, the students identify the following words and phrases:

Public figures, admonish

Informative, articles, criticism

Inquisitive, reporter

News, coverage, fired

Reassigned, preferential, coverage

Whisked, media

Step X: Students used previously taught cognitive strategies to arrive at the usage and meaning of the words.

Step XI: The students will be assisted to use the words in correct sentences of their own.

Exercise: Students go into description of the work of a journalist.

Reinforcement: Students will be commended for their active participation.

WEEK EIGHT / LESSON TWO

Topic: Reading Comprehension: "The Treatment of Nigerian Journalists"

Behavioural Objectives:

i. The students should be able to use the difficult words in the passage in correct sentences of their own.

ii. The students should be able to discuss the content of the passage and do oral comprehension exercise in the passage.

Ref. Book: Intensive English Bk. 2 Pg. 180 – 181

Teaching Aid/Material: Student textbooks; portable chalkboard and newspapers.

STEPS:

Step I: The teacher repeats the last lesson with the students.

Step II: The students go with more self-questioning on the content of the passage.

Step III: Students ask various questions on the passage and they look for the answers on their own.

Step IV: Students monitor their own comprehension using various strategies previously learnt.

Step V: The teacher tests the students with few questions and directs the students to specific points.

Exercise: The students answer the following questions orally.

i. Why do top public figures criticise Nigerian journalists?
ii. What problem journalists find with current attitude of society?
iii. Do you consider journalism a good profession?
iv. Do you think we deserve the journalists we have?

Reinforcement: The students that demonstrated high Metacognitive style are given one biro each.

WEEK EIGHT / LESSON THREE

Topic: Reading Comprehension: "The Treatment of Nigerian Journalists"

Behavioural Objectives:

i. The students should be able to answer questions orally on the passage.
ii. The students should be able to do written comprehension on the passage they have read.

Ref. Book: Intensive English Bk. 2 Pp 180 – 181

Teaching Aid/Material: Portable Chalkboard.

STEPS:

Step I: Students engage in group discussion of the passage as directed by the teacher.

Step II: Students answer various searching questions on the passage.

Step III: The teacher leads the students into a written exercise on the passage.

Exercise: Students answer the following questions in their exercise books.

i. How do people regard journalists nowadays?
ii. Is the treatment of journalists fair?

iii. What are the public's expectations of the journalist?

iv. Why is the journalist often rebuked?

WEEK EIGHT / LESSON FOUR

Post test administration.

APPENDIX II

TREATMENT PACKAGE FOR DIRECT -INSTRUCTION

WEEK ONE / LESSON ONE

Topic: Reading Comprehension: Obika

Ref. Book: Intensive English Bk. 1 Pp 26 – 27.

Behavioural Objective:

i. The students will be able to explain one / two goals of the lesson as directed by the teacher.

ii. The students will be able to identify the difficult words in the passage and pronounce them correctly.

Teaching Aid/Materials: Word cards students textbooks and prepared type-written copies of the reading comprehension passage.

STEPS:

Step I: The teacher explains to the students the purpose of the lesson as a way of mastering the vocabularies as contained in the passage. The students will be arranged as a small group in a semi-circle around the teacher for easy group interaction during teaching-learning activities.

Step II: The teacher then writes on the board the following vocabularies: finely-cut, inflicted, praiseworthy, dared, brooding, sojourned, coward, pleaded, excess, fiery anger. The teacher directs the students attention to the words on the board. Students also look directly on the board in preparation to listen for further instruction.

Step III: The teacher reads over these words to the hearing of the students thrice. Students will be directed to read the words collectively after the teacher.

Step IV: Students will be directed to read the words individually and later in a chorus to be led by the teacher.

Exercises: The teacher asks the students to do the following:

i. Pick a word card and pronounce the word on the card

ii. Write the word on the chalkboard

iii. Pronounce the word you wrote on the chalkboard.

Reinforcement: Students who performed excellently are commended and praised.

WEEK ONE / LESSON TWO

Topic: Reading Comprehension: Obika

Ref. Book: Intensive English Bk. 1 Pp 26 – 27.

Behavioural Objectives:

i. The students will be able to identify the difficult words in the passage.

ii. The students will be able to pronounce the difficult words correctly individually and collectively.

Teaching Aid/Material: Word cards, students' textbooks and prepared typewritten copies of the comprehension passage.

STEPS:

Step I: The teacher will repeat the previous lesson and explain what is expected of the students. The teacher will then display the ward cards and pronounce the words. The students will listen attentively.

Step II: The teacher writes the difficult words on the chalkboard for the students to see. The teacher will now pronounce each word for the students to hear. Students will pronounce the words aloud collectively after the teacher. Students will later pronounce individually.

Step III: The teacher will allow for enough oral practice during the lesson.

Exercise: Students will be given assignments on individual basis to say a word, identify it among the word cards and pronounce it.

Reinforcement: Students that performed well will be commended and clapped for.

WEEK ONE / LESSON THREE

Topic: Reading Comprehension: Vocabulary building, using words in sentences.

Behavioural Objectives:

i. The students will be able to pronounce and use the unfamiliar vocabularies in simple sentences.

ii. The students should be able to fill in the blank spaces in the sentences with the vocabularies earlier identified in the comprehension passage.

Ref. Book: Student textbooks – Intensive English Bk. 1 Pg. 28 item 3.2.4.

Teaching Aid/Material: Students textbooks and word cards.

STEPS:

Step I: The teacher prepares the students' mind as to what is expected of them in the lesson. The teacher puts on the board with the following five words: fine cut, inflicted, praiseworthy, dared, brooding. The students will be assisted to pronounce the words.

Step II: The teacher also writes on the board the following sentences with blank spaces in them.

1. The beautiful girl who won the beauty contest has …….features.
2. The policeman stood in the doorway and ……anyone to pass him.
3. The cruel husband ….pain and suffering on his wife and children.
4. The governor gave the soldiers medals for the …..action of fighting for the country
5. The woman whose husband died often sat for many hours looking out of the window and ……..

Step III: The student will be assisted to read through the incomplete sentences as well as the words to complete them.

Step IV: Students go into unguided practice later in the lesson

Exercises:

i. The students repeat step III using other vocabularies.
ii. The teacher assists the students to do more oral practice.

Reinforcement: Students clapped for each other/one another.

WEEK TWO / LESSON ONE

Topic: Reading Comprehension: Revision on guided vocabulary mastery.

Ref Book: Intensive English Bk. 1 Pp. 26 – 28

Behavioural Objective: The students will be able to master additional vocabularies identified in the passage.

Teaching Aid/Material: Students textbooks and word cards.

STEPS:

Step I: The teacher lists all previously learnt vocabularies on the board. Students will be drilled on the correct usage as previously learnt.

Step II: The students fill in blank spaces in sentences written by the teacher using any appropriate vocabulary among the ones listed on the board.

Step III: The teacher will assist the students to go into further practice

Exercises:

i. The teacher asks the students to list all the vocabularies they have gained in the passage.

ii. The teacher asks the students to tick the one that describes Obika.

Reinforcement: Students with outstanding performance are given public approval and others also encouraged to work harder.

WEEK TWO / LESSON TWO

Topic: Guided Practice on Reading Comprehension: Search for main ideas.

Behavioural Objective: The students will be able to read the passage, search and identify main ideas through discussion done with the teacher's close supervision / guidance.

Ref. Material: Intensive English Bk. 1 Pp. 26 – 27.

Teaching Aid/Material: The students textbooks and word cards.

STEPS:

Step I: The teacher will read the passage to the students and they will listen attentively. Students will be allowed to read aloud in turns following the teacher's sample reading.

Step II: The teacher will direct the students' attention to the use of vocabularies already studied in the passage. The teacher demonstrates and model specific terms used in the passage. For example: half-brother, half-sister, brother-in-law, e.t.c.

Step III: The teacher will touch each vocabulary and terms written on the board and connect this word to the demonstration organised in the class.

Step IV: Students will respond actively to the class demonstration and later on, the teacher corrects all errors.

Step V: Students will later work independently. Students will later engage in independent discussions following questions asked by the teacher.

Exercises:

i. Students repeat what they have learnt in the lesson

ii. The students mention the main ideas in the passage.

Reinforcement: Students receive one pencil each.

WEEK TWO/LESSON THREE

Topic: Reading Comprehension – Obika: Further learning strategy.

Behavioural Objective: The students should be able to discuss and summarise the various aspects of the narration in the story about "Obika".

Ref. Book: Intensive English Bk. 1 Pp. 26 – 28.

Teaching Aid/Materials: Portable chalkboard

STEPS:

Step I: The teacher explains to the students the purpose of the lesson and students will be allowed to read the passage silently each one on his/her own. After ten minutes silent reading, the students will go into another five minutes discussion as a group.

Step II: The teacher will write the following words on the board: handsome, two, too quickly, coward, listen, beauty, drank, advised, might die, killed. Students will read aloud the words.

Step III: The teacher displays the portable board on which the following sentences have been written:

1. Obika was very …… and the people praised his ……..
2. But there were …… things wrong with Obika.
3. He …… too much and he became angry ……
4. His father ……him to be a …… and live, for brave people …….. early.
5. Obika did not …… to his father.
6. One day he almost ……his brother-in-law.

Step IV: The teacher now instructs the students to complete the above sentences by filling in the blank spaces with the word on the chalkboard. The teacher assists the students to do necessary corrections on the items. The students will read over the six-item summary of the passage.

Exercise: The teacher asks the students to connect each of the summary items to the whole story of Obika.

Reinforcement: Students receive praises for good performance.

WEEK THREE / LESSON ONE

Topic: Reading Comprehension: (Advances in Modern Medicine): Extension vocabulary, using words in sentences and vocabulary building.

Behavioural Objective:

i. The students will be able to read and master the use of the identified vocabularies in the passage.

ii. The students will be able to use the words in sentences.

Ref. Book: Intensive English Bk. 2 pp 3 and 38

Teaching Aid/Material: Word cards and student textbooks.

STEPS:

Step I: The teacher encourages semi-circle sitting arrangement recommended in literature for a direct teaching lesson. The students listen to what is expected of them in the lesson.

Step II: The teacher writes the following vocabularies on the chalkboard: immunisation, available, disease, nudging, plague, anesthesia, new range of painkillers, sedative drugs, calm and alleviate. The teacher will read over these words to the hearing of the students. The students will read along with the teacher the vocabularies written on the chalkboard.

Step III: The students will read the words individually, one after the other. The teacher will explain, demonstrate and model the vocabularies as applicable. The teacher will assist the students to use the words in correct sentences.

Step IV: The teacher will write the sentences as used on the chalkboard and the students will read these sentences aloud to the teacher.

Exercises: The teacher leads the students to answer the following questions.

i. What is the purpose of reading the passage?

ii. What do you know about the passage?

Reinforcement: Students to receive praises for good performance.

WEEK THREE / LESSON TWO

Topic: Reading Comprehension: (Advances in Modern Medicine): Guided vocabulary building and mastery.

Behavioral Objective:

1. The students will be able to master additional vocabularies on the comprehension passage.
2. The students will be able to do the exercises on the passage correctly.

Ref. Book: Intensive English BK. 2. Pgg3

Teaching Aids/Material: Word cards and student text books.

STEPS:

Step I: The teacher will revise with the students the previously learnt vocabularies. Students will be drilled on the appropriate use of the vocabularies.

Step II: The teacher will list more vocabularies on the chalkboard as follow: match, filter, disconcerted, paralysed, complicated, astounding. The students read out the words to the teacher.

Step III: The teacher writes the following sentences with missing gaps on the board:

i. The news that he had won the first prize of one million naira in the national lottery was the most …….. news that Ake had heard in a long time.
ii. Many people boil and --- water before drinking it.
iii. The sight of the gunman--- the old woman and she was easily robbed.
iv. The teacher had to explain the story to the children because they found it -----.
v. The small, gentle boy often went home in tears for he was no ------ for the big bully at school.
vi. The boy's mother ----- that he had been stealing when she found some bags of sweet hidden in his suitcase.

The teacher will direct the students to go through the words listed and also to read the sentences with missing gaps. The students fill in each blank space with the correct word from the list of words given. Students will be assisted to do necessary corrections.

Exercises: The teacher assists the students to discuss the relevance of the following words to the passage: match, filter, paralysed, complicated.

Reinforcement: Students that got all answers correct were given one pencil each.

WEEK THREE/LESSON THREE

Topic: Reading Comprehension: (Advances in Modern Medicine):

Guided Reading Comprehension**.**

Behavioural objective:

i. The students will be able to read fluently the passage and discuss the content following the teacher's guide.

ii. The students will be able to answer questions on the passage read**.**

Ref. Bk: Intensive English Bk. 2 pg. 3

Teaching Aid/Materials: Student textbooks and word cards.

STEPS:

Step I: The teacher reads the passage to the students' hearing twice. The teacher will direct the students' attention to the vocabularies in the passage. Students will follow the teacher's sample reading by reading aloud individually. The teacher will correct their reading and pronunciation errors.

Step II: The teacher will explain phrases and expressions used in the text. The teacher will initiate discussions on the passage by asking few questions on each of the paragraphs read. Students will be engaged in free-guided discussion by answering questions on the passage.

Step III: Students will undertake more drilling to ensure comprehension of the passage.

Exercises: Students will be directed to summarise each paragraph using their own words.

Reinforcement: All students will be commended for the contribution made.

WEEK FOUR/LESSON ONE

Topic: Comprehension Exercises: Guided and Unguided Comprehension Exercises.

Behavioural Objective: The students should be able to answer questions first with teacher's guide and later without teacher's guide.

Ref. Bk. Intensive English Bk. 2 Pp. 4-5

Teaching Aid/Material: Portable chalkboard.

STEPS:

Step I: The teacher will revise with the students the various points formerly discussed on the passage. The students will provide simple and correct answers to the teachers questions.

Step II: The teacher now hangs the portable chalkboard containing five questions and each question provided with four alternative answers as follows:

1. **Some people owe their lives to**
1. blood groups and iron lungs
2. Kidney machines and iron lungs
3. Anaesthesia and painkillers
4. Small pox and plague

(2) A better title for this passage is:

1. Modern Banking
2. Pain-killers
3. Breakthroughs in Modern Medicine
4. Blood transfusion and groups

(3) According to the writer:

1. Much work remains to be done
2. Too much work has already been done
3. Too much harm has already been done
4. There will be no more disease and pain

(4) The warning given by the writer is that:

1. Kidneys have ceased to filter impurities
2. Immunisation should be used against small pox
3. Some new drugs are not wholly safe and effective
4. Some new drugs are too powerful and dangerous.

(5) The writer's purpose is to:

1. Caution against the dangers of new drugs
2. Inform about the advances of modern science
3. Raise alarm about loss of lives
4. Advertise new products and drugs

Step III: Students will be directed to select the appropriate answer from the four alternatives a-d in each item. The teacher gradually leads the students to unguided comprehension by writing these five questions on the chalkboard:

Reinforcement: The students will be commended for their efforts.

WEEK FOUR/LESSONS TWO

Topic: Revision Exercise on Reading Comprehension: Identification and mastery of vocabularies.

Behavioural Objective: The students will be able to identify on their own specific vocabularies and practise the use of such vocabularies.

Ref. Book: Intensive English Bk. 2 Pp. 50 - 51

Teaching Aid/Materials: Student textbooks and word cards.

STEPS:

Step I: The teacher will instruct the students to read the passage silently. The teacher will allow the students to read the passage aloud in turns and he/she corrects their errors as they read.

Step II: The teacher encourages the students to note some vocabularies that are unfamiliar or difficult in the passage. The teacher will write such words on the chalkboard: e.g electorate, electioneering, voting, procedure, balloting, democratic, party, government, post, instrumental, country, weapons, socio-economic.

Step III: The teacher will demonstrate, model and explain these words as appropriate. Students will also act and use the words in simple sentences of their own.

Step IV: Students will be directed to see how the words are being used in context. The teacher and the students will relate the vocabularies to the content of the passage. Discussions will be held on the passage to understand the words to mastery level.

Exercises: The teacher will ask the students to do the following orally as:

i. Find out the vocabularies that point to the main ideas in the passage.
ii. Read out how the vocabularies are used in the passage.

Reinforcement: The teacher will invite the outstanding students to shake hands with them in front of the class.

WEEK FOUR/LESSON THREE

Topic: Reading Comprehension "Voting": Further revision exercises on vocabulary building and guided summary of the comprehension passage.

Ref. Book: Intensive English Book 2. Pp. 51 –52

Behavioural Objective: The students should be able to practise vocabulary building and guided summary of the comprehension passage read.

Teaching Aid/Materials: Student textbooks and word cards.

STEPS:

Step I: The teacher writes the following questions on the board for the students to give the answers and summary:

1. What should the electorate be educated on?
2. Why were many votes cancelled in the 1979 election?
3. List three things that the electorate should know.

Step II: The teacher assists the students to practice vocabulary building exercise on Pg. 51 numbers 1-10 in their textbooks. The teacher does the example and students follow. The teacher will move round to see each student work and give the necessary correction and feedback.

Step III: The teacher will drill the students on correct answers to the above questions as contained in the passage.

Exercises: The teacher asks the students to explain in their own words the meaning of the following vocabularies: electorate, elections, political party and voting.

Reinforcement: The teacher distributes one eraser to each of the students for their good performance.

WEEK FIVE/LESSON ONE

Topic: Reading Comprehension: Practice in vocabulary building.

Behavioural Objective: The students should be able to identify and pronounce the vocabulary selected in the passage.

Ref. Book: Intensive English Book 2 Pg. 52

Teaching Aid/Material: Portable chalkboard

STEPS:

Step I: The teacher hangs the portable chalkboard on the wall. The teacher directs the students' attention to the following words on the chalkboard:

foul	rigging	politician
brand	democratic	free and fair
bride	presents	beneficial
thumb	malpractice	squandering
ballot	education	weapons

Step II: The teacher will pronounce each of the words on the list. The students will pronounce the words after the teacher

The students will then pronounce collectively and later individually. The students will be assisted by the teacher to identify the words and note how they are used in the comprehension passage.

Exercises: The teacher asks the students to separate the words into positive, negative and neutral words

Reinforcement: The teacher commends the effort of the students.

WEEK FIVE/LESSON TWO

Topic: Reading comprehension: Revision on vocabulary building

Behavioural Objective: The students will be able to master the use of the vocabularies in the passage.

Ref. Book: Intensive English book 2. Pg. 52

Teaching Aid/Material: portable chalkboard

STEPS:

Step I: The teacher hangs the portable chalkboard containing the following words:

foul rigging politician

brand democratic free and fair

bride, presents, beneficial

thumb-print, malpractice, squandering

ballot, education, weapons

Step II: The teacher assists the students to repeat what was done in the last lesson. The students read directly from their textbooks the use of the words in the passage. The teacher writes the sentences on the board. The teacher makes similar sentences with each word. The students will be assisted to make similar sentences on their own.

Step III: The teacher corrects the student's wrong expressions and writes the correct ones on the board. Students read over the correct sentences written on the chalkboard by the teacher.

Exercise: The teacher assists the students to make more correct sentences with the words.

Reinforcement: The students will receive words of commendation for active participation.

WEEK FIVE/LESSON THREE

Topic: Reading Comprehension: Unguided questions and answers in oral form.

Behavioural Objective: The students should be able to answer five unguided questions orally.

Ref. Book: Intensive English book 2 pg. 52

Teaching Aid/Materials: Portable chalkboard

STEPS:

Step I: The teacher reads over the passage twice to the hearing of the students. The students read the passage silently on their own. The students are allowed to read aloud individually.

Step II: The teacher gradually leads the students into discussion on the passage.

Step III: The teacher now writes the following questions on the board:

1. What is the passage about?
2. What are the things the electorate should be educated on?
3. What happened in 1979 elections?
4. What is usually the consequence of not educating electorate on voting procedures?
5. How can votes be powerful weapons?

Step IV: The students answer the questions orally and the teacher corrects their mistakes and the students responses where needed.

Exercise: The teacher asks the pupils to practise the following exercise:

"The writer stated some of the things that the electorate should **……** the first, the electorate should **……** Second, the electorate should, **……** third, the electorate should **……."**

Reinforcement: The teacher distributes one exercise book each to the best three student participants.

WEEK SIX/LESSON ONE

Topic: Reading Comprehension: ''The Trial'

Behavioural Objectives:

i. The students should be able to identify the difficult words in the passage.

ii. The students should be able to pronounce the difficult words correctly.

Ref. Book: Intensive English Bk. 2 pg. 99

Teaching Aid/Material: Students textbooks and word cards.

STEPS:

Step I: The teacher will organise the students in a semi-circle sitting arrangement. The teacher asks the students to open to page 99 of their textbooks. The teacher shows the word cards to the students one after the other. The students pronounce the words correctly following the teachers' corrections.

Step II: The teacher identifies the words for the students in their textbooks. The teacher writes the words on the chalkboard. The students will be assisted to read over the list of words on the chalkboard.

Step III: The teacher drills the students on the pronunciation of the words.

Exercise: The teacher calls on the students one after the other to pick a word and then pronounces the word correctly and writes the word on the chalkboard.

Reinforcement: The students will be commended for their good performance.

WEEK SIX/LESSON TWO

Topic: Reading comprehension: 'The Trial'

Behaavioural Objectives:

i. The students will be able to pronounce the words correctly.
ii. The students will be able to use the words in correct sentences.

Ref. Book: Intensive English books 2 pg. 99

Teaching Aid/Material: Student textbooks and word cards

STEPS:

Step I: The teacher repeats the last lesson with students. The teacher writes the following words on the board: woodenbench, court, trial, magistrate, cold blooded, witness box, guilty, whiplash. The students re-pronounce the word to the hearing of the teacher.

Step II: The teacher directs the attention of the students to the words as used in the passage. The students read through the passage noting the use of the words by the writer. The student will be assisted by the teacher to construct short correct sentences with the words. The teacher writes the correct sentences on the board and students read the sentences.

Exercise: The students will read the correct sentences on the board and make more sentences with the words.

Reinforcement: Students were commended and encouraged for further improvements.

WEEK SIX/LESSON THREE

Topic: Reading comprehension: The Trial'

Behavioural Objectives:

i. The students would be able to use difficult words identified earlier in correct sentences of their own.

ii. The students will be able to answer some comprehension questions on the passage.

Ref. Book: Intensive English book 2 pp. 99-100

Teaching Aid/Material: Student textbooks and portable chalkboard

STEPS:

Step I: The teacher repeats the last lesson with the students. The students use the difficult words in short sentences of their own. The teacher summarises the main points in the passage to the students.

Step II: The students will be assisted with oral comprehension questions. The teacher puts the corrected sentences and answers on the board. The students read over the correct sentences and answers on the board.

Exercises: The teacher hangs the portable board containing the following questions for the students to answer.

1. Where is the Black Maria standing?
2. What is in the Black Maria?
3. Who is Dirisu?
4. Why was Dirisu feared?
5. What offences did Aina commit?
6. Did Aina plead guilty?
7. What penalty was awarded to Aina?

Reinforcement: The teacher commends students that participated actively in the oral exercise.

WEEK SEVEN/LESSON ONE

Topic: Reading comprehension: “One-Eyed Sunday”

Behavioural objectives:

i. The students would be able to identify some difficult words in the passage.
ii. The students would be able to pronounce the difficult words correctly
iii. The students would be able to use the difficult words in sentences of their own.

Ref. Book: Intensive English book 2 pg. 120

Teaching Aid/Material: Student textbooks and portable word cards.

STEPS:

Step I: The teacher encourages semi-circle sitting arrangement recommended in literature for a direct-teaching method class. The teacher will inform the students of what is expected of them in the lesson.

Step II: The teacher writes the following words on the chalk board: frightened glance, startled, puckered, manslaughter, naughty, wayward, smart and rumour. The teacher directs the students attention to the words on the board. Students also look directly on the board in preparation to listen for further instruction.

Step III: The teacher will read over these words to the hearing of the students thrice. Students will be directed to read the words collectively after the teacher. Students will be directed to read individually and later in chorus to be led by a student.

Exercise: The teacher asks the students to do the following:

i. Pick word card and pronounce the word in the card
ii. Write the word on the chalkboard
iii. Pronounce the word you wrote on the chalkboard.

Reinforcement: Students who performed excellently will be commended and praised.

WEEK SEVEN/LESSON TWO

Topic: Reading comprehension: "One-Eyed Sunday”

Ref. Book: Intensive English book 22. Pg. 120

Behavioural Objectives:

i. The students would be able to pronounce the difficult words correctly individually and collectively.
ii. The students would be able to use the difficult words in correct sentences

iii. The students would be able to read the passage and go into guided discussion on the passage.

Teaching Aid/Materials: Student textbooks, word cards and portable chalkboard.

STEPS:

Step I: The teacher makes the students sit down in a semi-circle arrangement as recommended in literature for a direct- teaching method. The teacher repeats the previous lesson on difficult word identification. The teacher revises word pronunciation with the students by showing each of the word cards to the students and calls on them individually and jointly to pronounce the words.

Step II: The teacher reads the passage to the hearing of the students twice. The teacher calls on one of the students to read the passage following the teacher's sample reading. The teacher corrects the students' reading and allows for more students to read.

Step III: The teacher mentions some important sentences in the passage to bring out the main points. The teacher writes each of these points on the chalkboard. The teacher directs the students' attention to the main points as contained in the passage. The students look for more main ideas in the passage.

Exercises:

i. Students repeat what they have learnt in the lesson.

ii. The students mention the main ideas in the passage.

Reinforcement: Students will receive one pencil each for actively participating in the lesson.

WEEK SEVEN / LESSON THREE

Topic: Reading Comprehension: "One-Eyed Sunday"

Ref. Book: Intensive English Book 2. pp 120 – 121.

Behavioural Objectives:

i. The students will be able to discuss the content of the passage.

ii. The students will be able to answer few oral questions on the content of the passage.

iii. The students will be able to complete correctly guided questions on the passage.

Teaching Aid/Material: Portable Chalkboard

STEPS:

Step I: Students will be allowed to read the passage silently each one on his /her own. The teacher leads the students into group discussion on the content of the passage.

Step II: The teacher revises the last lesson on main ideas of the passage with the students. The teacher asks the following questions from the students and assists them to provide the correct answers to the questions:

i. Who was One – Eyed Sunday?
ii. Why was he called One – Eyed Sunday?
iii. What did Bassey do?
iv. Why was it assumed that Bassey robbed a shop?
v. Why did father point at him as warning?

Step III: The teacher leads the students into full discussions on all the questions.

Exercise: The teacher hangs a portable chalkboard on the wall for students to complete the following guided summary:

"The writer describes an evil man called _____. He was given this name because _____. Because he looked fine for that day, the boys assumed that _____. Fathers always pointed at him as warning to their children because _____'.

Reinforcement: The students will be praised for their good performance.

WEEK EIGHT / LESSON ONE

Topic: Reading Comprehension: "The Treatment of Nigerian Journalists".

Behavioural Objectives:

i. The students will be able to identify the difficult words in the passage.
ii. The students will be able to pronounce the difficult words and use them in correct sentences of their own.

Ref Book: Intensive English Book 2 pp 180 – 181

Teaching Aid/Material: Student textbooks and word cards.

STEPS:

Step I: The teacher directs the students to sit in a semi-circle. The teacher directs the students to open their books to page 180. The teacher reads the title of the passage twice to the hearing of the students. Students read the title of the passage collectively aloud.

Step II: The teacher then reads the whole passage to the hearing of the students. The teacher repeats the reading of the passage while the students follow along as the teacher is reading.

Step III: The teacher shows the word cards containing difficult words. Students identify the words on the chalkboard.

Step IV: The teacher uses the words in sentences and writes the sentences on the chalkboard. The students read the words and the sentences written on the chalkboard.

Exercise:

i. Students use more words in short sentences.
ii. The students read their corrected sentences written on the chalkboard.

WEEK EIGHT / LESSON TWO

Topic: Reading Comprehension: The Treatment of Nigerian Journalists.

Behavioural Objectives:

i. The students will be able to use the difficult words in correct sentences of their own.
ii. The students will be able to discuss the content of the passage.

Ref Book: Intensive English Book 2 Pp 180 – 181.

Teaching Aid/Material: Student textbooks, portable chalkboard and newspapers.

STEPS:

Step I: The teacher repeats the previous lesson with the students. The teacher assists the students to identify more difficult words on the passage. Students use the words in sentences. The teacher corrects the students errors and he writes the correct sentences on the board for students to read.

Step II: The teacher gives sample reading to the students. Students read the passage aloud in turns. The students engage in discussion of the passage with the teacher. The teacher mentions some vital phrases, ideas and specific sentences on the passage.

Step III: The students put down short sentence following the discussion of the passage with the teacher. The students will be assisted to answer questions relating to the sentences identified by the teacher.

Exercise: Students answer the questions orally on the passage.

WEEK EIGHT / LESSON THREE

Topic: Reading Comprehension: The Treatment of Nigerian Journalists.

Behavioural Objectives:

i. The students will be able to answer questions orally on the passage.

ii. The students will be able to do written comprehension on the passage they have read.

Ref Book: Intensive English Book 2 pp 180 – 181

Teaching Aid/Material: Portable Chalkboard

STEPS:

Step I: The teacher repeats the last lesson with the students. The teacher asks various questions from the students on the passage.

Step II: Students read from the passage statements that correspond with their answers. The teacher puts the correct answers on the board. Students read the correct answers.

Exercises: Students answer the following questions in their exercise books.

1. How do people regard journalists nowadays?
2. Is the treatment of journalists fair?
3. What are the public's expectations of the journalist?
4. Why is the journalist often rebuked?

WEEK EIGHT / LESSON FOUR

Post-test administration

APPENDIX III

TREATMENT PACKAGE FOR CONVENTIONAL METHOD

WEEK ONE/LESSONS 1 – 3

Topic: Reading Comprehension: Obika

Ref. Book: Intensive English Book 1 pp. 26 – 27

BEHAVIOURAL OBJECTIVE:

At the end of the lesson:

(i) the students should be able to identify specific words in the passage.

(ii) The students should be able to pronounce the words correctly.

Teaching Aid/Materials: Word cards, students text books and prepared type-written copies of the reading comprehension passage.

STEPS:

Step I: Students read silently and individually the comprehension passage.

Step II: The teacher reads aloud to the pupils hearing.

Step III: Students read individually aloud.

Step IV: The teacher pronounce the difficult words for the students.

Step V: Students repeat the pronunciation of the difficult words.

Exercise: Students were asked to identify more difficult words in the passage.

WEEK TWO/LESSON 1- 3

Topic: Reading Comprehension: Revision activities on Week one.

Behavioural Objectives:

At the end of the lesson, the students should be able to:

(i) identify more difficult words in the passage

(ii) pronounce the words correctly.

(iii) Read aloud individually the passage.

Teaching Aids and Materials: Word cards, students text books and portable chalkboard.

Steps: Revision of steps I – V of the previous week.

Exercise: Reading of the passage at home.

WEEK THREE/LESSONS 1 – 3

Topic: Reading Comprehension: (Advances in Modern Medicine)

Behavioural Objective:

At the end of the lessons, the student should be able to:

(i) read and identify specific vocabularies in the passage.

(ii) use the identified words in correct sentences of their own.

Ref. Book: Intensive English Bk. 2 pp. 3 & 38

Teaching Aid/Materials: Word cards and student textbooks.

STEPS

Step I: Students read the passage silently.

Step II: The teacher reads the passage to the students hearing.

Step III: The students read aloud individually.

Step IV: The teacher pronounces the difficult words to the students.

Step V: The students pronounce and use the difficult words in sentences.

Step VI: The students practice the comprehension questions on the passage orally.

Step VII: The students engage in written comprehension exercise.

Exercise: Students practice more comprehension questions from home.

WEEK FOUR/LESSONS 1 – 3

Topic: Reading Comprehension: Revision activities on Week three.

Behavioural Objectives:

At the end of the lesson, the student should be able to:

(i) identify more difficult words in the passage.

(ii) read aloud the passage individually.

(iii) pronounce the difficult words correctly.

Teaching Aid/Materials: Word cards and portable Chalkboard.

STEPS: Revision of steps I – VII of week three.

WEEK FIVE/LESSONS 1 – 3

Topic: Reading Comprehension: "Vating"

Ref. Book: Intensive English Book 2 pp. 51-52

Behavioural Objectives:

At the end of the lesson, the students should be able to:

(i) practice unguided reading aloud.

(ii) answer the questions under the comprehension passage orally.

(iii) answer the questions in written form in their exercise books.

Teaching Aid/Materials: Students' text books and word cards.

STEPS:

Step I: The students read the passage silently.

Step II: The teacher reads aloud to the pupils hearing of the students.

Step III: The students read aloud individually.

Step IV: The teacher pronounces the difficult words for the students.

Step V: The students pronounce the difficult words and use them in sentences.

Step VI: The teacher leads the students and practice oral comprehension on the passage.

Step VII: Students answer the questions on the passage in their exercise books.

WEEK SIX/LESSONS 1 – 3

Topic: Reading Comprehension: Revision on week five lessons 1 – 3.

Ref. Book: Intensive English Book 2 pp. 51 – 52

Behavioural Objectives:

At the end of the lesson, the students should be able to:

(i) discuss the content of the comprehension passage.

(ii) answer questions on the passage in written form.

Teaching Aid/Materials: Students text books.

STEPS:

Step I: Revision of steps I – VI of previous week.

Step II: Discussion on the passage by the students.

Step III: Written comprehension.

WEEK SEVEN/LESSONS 1 – 3

Topic: Reading Comprehension: "The trial"

Behavioural Objectives:

At the end of the lesson, the students should be able to:

(i) read the passage correctly.

(ii) discuss the content of the passage.

(iii) practice written comprehension on the passage.

Ref; Book: Intensive English Book 2 pg. 99.

Teaching Aid/Materials: Students text books and Word cards.

STEPS:

Step I: The students read the passage silently and aloud on their own.

Step II: The students were assisted to identify specific vocabularies on the passage.

Step III: Students went into oral comprehension exercise.

Step IV: The students do written comprehension on the passage.

WEEK EIGHT/LESSONS 1 & 2

Topic: Reading Comprehension: Revision of lessons 1 – 3 of the previous week.

Behavioural Objectives:

At the end of the lesson, the students should be able to answer the questions on the passage in written form.

STEPS:

Step I: The teacher leads the students into discussion of the passage.

Step II: The students answer more questions on the passage.

WEEK EIGHT/LESSONS 3

Post-test administration.

APPENDIX IV

THE PUPIL RATING SCALE REVISED

Screening for Learning Disabilities

Student's Name:_____ Sex:_____ Date:_____

Year Month Day

Residence: _____ Born:_____

Year Month Day

Parents:_____ Age:_____

Year Month Day

School:_____

Teacher:_____ Grade:_____

SUMMARY OF SCORES

AUDITORY COMPREHENSION _____

SPOKEN LANGUAGE _____ VERBAL _____

ORIENTATION _____

MOTOR COORDINATION _____

PERSONAL-SOCIAL BEHAVIOUR _____ NONVERBAL _____

TOTAL SCALE SCORE _____

INSTRUCTIONS

Some children have deficits in learning which distinguish them from others in their class. The Student Rating Scale was developed so that these children can be more readily identified.

The Scale consists of five behavioural characteristics: I. Auditory Comprehension and Memory; II. Spoken Language; III. Orientation; IV. Motor Coordination; and V. Personal-Social Behaviour. Rate each child on these five characteristics.

Make your ratings on a five-point scale. A rating of 3 is average. Rating of 1 or 2 is below average. Rating of 4 or 5 is above average. A rating of 1 is the lowest and a rating of 5 is the highest that can be given. Indicate your rating by circling the number that represents your judgment of the child's level of function. When making your evaluation, rate only one area of behaviour at a time, bearing in mind that a child might be functioning well in some respects but not in others.

The primary purpose for using The Student Rating Scale is to identify children who have learning disabilities. It is not intended that it serves as an indicator of inferior potential nor lack of opportunity for learning. It is important that you make your ratings only on the basis of the items on this Scale without concern for other factors.

For your ratings to be as discriminating as possible, you should have extensive opportunity for observing each child before making your judgments. Also, study the definition for the items given in the Manual. Your ratings are of considerable value. They serve as the initial screening so children who need further assessment can be identified.

RATE THE CHILD ON THESE BEHAVIOURAL CHARACTERISTICS

I. AUDITORY COMPREHENSION AND MEMORY

COMPREHENDING WORD MEANINGS	**RATING**
Extremely immature level of understanding	1
Fails to grasp simple word meanings, misunderstands words at grade level	2
Good grasp of vocabulary for age and grade	3
Understands all grade-level vocabulary as well as higher-level word meanings	4
Superior understanding of vocabulary: understands many abstract words	5
FOLLOWING INSTRUCTIONS	
Unable to follow instructions; always confused	1
Usually follows simple instructions but often needs individual help	2
Follows instructions that are familiar and not complex.	3
Remembers and follows extended instructions	4
Unusually skillful in remembering and following instructions.	5
COMPREHENDING CLASS DISCUSSIONS	
Unable to follow and understand class discussion; always inattentive	1
Listens but rarely understands well; mind often wanders	2
Listens and follows discussions according to age and grade	3
Understands well; benefits from discussions	4
Becomes involved; shows unusual understanding of material	5

RETAINING INFORMATION

Almost total lack of recall; poor memory	1
Retains simple ideas and procedures if repeated	2
Average retention of materials, adequate memory for age and grade	3
Remembers information from various sources; good immediate and delayed recall.	4
Superior memory for details and content	5
SCORE	_____

II. SPOKEN LANGUAGE

VOCABULARY	**RATING**
Always uses immature; poor vocabulary	1
Limited vocabulary, primarily simple nouns; few precise, descriptive words	2
Adequate vocabulary for age and grade	3
Above-average vocabulary; always uses numerous precise, descriptive words	4
High-level vocabulary; always uses precise words; conveys abstractions	5

GRAMMAR

Always uses incomplete sentences with grammatical errors	1
Frequently uses incomplete sentences; numerous grammatical errors	2
Uses correct grammar; few errors in use of prepositions, verb tense, pronouns	3
Above average oral language; rarely makes grammatical errors	4
Always speaks in grammatically correct sentences	5

WORD RECALL

Unable to recall the exact word	1
Often gropes for words to express himself/herself	2
Occasionally searches for correct word; recall adequate for age and grade	3
Above average; rarely hesitates on a word	4
Always speaks well; never hesitates or substitutes	5

STORYTELLING – RELATING EXPERIENCES

Unable to tell a comprehensible story	1
Difficulty relating ideas in a logical sequence	2
Average; adequate for age and grade	3
Above average, uses logical sequence	4
Exceptional; relates ideas in a logical, meaningful manner.	5

EXPRESSION OF IDEAS

Unable to relate isolated facts	1
Difficulty relating isolated facts; incomplete and scattered ideas	2
Usually relates facts meaningfully; relates facts adequately for age and grade.	3
Above average; relates facts and ideas well	4
Outstanding: always relates facts appropriately.	5

SCORE

III. ORIENTATION

JUDGING TIME

Lacks grasp of meaning of time; always late or confused	1
Fair time concept; tends to dawdled; often late	2
Average time judgment; adequate for age and grade	3
Prompt; late only with good reason	4
Skillful in handling schedules; plans and organizes well.	5

SPATIAL ORIENTATION

Always confused; unable to navigate around school, playground, or neighbourhood.	1
Frequently gets lost in relatively familiar surroundings	2
Can maneuver in familiar locations; average ability for age and grade.	3
Above average; rarely lost or confused.	4
Adapts to new situations and locations; never lost.	5

JUDGING RELATIONSHIP (big-little, far-close, heavy-light)

Judgements always inadequate	1
Makes elementary judgements successfully	2
Average judgements for age and grade	3
Accurate but does not generalize to new situations	4
Usually precise judgements; generalize to new situations and experiences.	5

KNOWING DIRECTIONS

Highly confused; unable to distinguish right-left, north-south-east-west	1
Sometimes exhibit confusion	2
Average; uses right-left, north-south, east-west	3
Good sense of direction; seldom confused	4
Excellent sense of direction.	5

SCORE _____

IV. MOTOR COORDINATION

GENERAL COORDINATION (walking, running, hopping, climbing)

Very poorly coordinated; clumsy	1
Below average, awkward	2
Average for age; graceful	3
Above average; does well in motor activities	4
Excels in coordination	5

BALANCE

Very poor balance	1
Below-average ability, falls frequently	2
Average ability for age; adequate equilibrium	3
Above average ability in activities requiring balance	4
Excels in balance	5

MANUAL DEXTERITY

Very poor in manual dexterity	1
Awkward; below average in dexterity	2
Adequate dexterity for age; manipulates well	3
Above-average dexterity	4
Excels; readily manipulates new equipment.	5

SCORE _____

V. PERSONAL SOCIAL BEHAVIOUR

COOPERATION

Continually disrupts classroom; unable to inhibit responses	1
Frequently demands attention, often speaks out of time.	2
Waits his/her turn; average for age and grade	3
Above average; cooperates well	4
Excellent ability; cooperates without adult encouragement	5

ATTENTION

Never attentive; very distractible	1
Rarely listens; attention frequently wanders	2
Attention adequate for age and grade	3
Above average in attention; almost always attends	4
Always attends to important aspects; long attention span.	5

ORGANIZATION

Highly disorganized; very slovenly	1
Often disorganized in manner of working; inexact, careless	2
Maintains average organization of work; careful	3
Above-average organization; organizes and completes work	4
Highly organized; completes assignments in meticulous manner.	5

NEW SITUATIONS (parties, trips, changes in routine)

Becomes extremely excitable, totally lacking in self-control	1
Often overreacts; finds new situations disturbing	2
Adapts adequately for age and grade	3
Adapts easily and quickly with self-confidence	4
Excellent adaptations; shows initiative and independence.	5

SOCIAL ACCEPTANCE

Avoided by others	1
Tolerate by others	2
Liked by others; average for age and grade	3
Well-liked by others.	4
Sought by others.	5

RESPONSIBILITY

Rejects responsibility; never initiates activities	1
Avoids responsibility; limited acceptance of role for age	2
Accepts responsibility; adequate for age and grade	3

Above average in responsibility; enjoys responsibility; initiates and volunteers.	4
Seeks responsibility; almost always takes initiative with enthusiasm.	5

COMPLETION OF ASSIGNMENTS

Never finishes even with guidance	1
Seldom finishes even with guidance	2
Average performance; follows through on assignments	3
Above-average performance, completes assignments without urging	4
Always completes assignments without supervision	5

TACTFULNESS

Always rude	1
Usually disregards feeling of others	2
Average tact; behaviour occasionally inappropriate socially	3
Above average in tactfulness; behaviour rarely inappropriate socially	4
Always tactful; behaviour never socially inappropriate.	5

SCORE _____

APPENDIX V

Reading Comprehension Ability Screening Test (RCAST) (J.S.S.2).

Part A: (Personal Data)

1. Name of student:
2. Name of school:
3. Class:
4. Sex: Male ( ) Female ( )
5. Age:

Part B.

Reading aloud, use of words in sentences and answering questions on the comprehension passages.)

Instructions:

i. Read the following two comprehension passages aloud to the teacher.

ii. Use the underlined words in correct sentences of your own.

iii. Answer all the questions under each comprehension passage.

PASSAGE – 1

CONTROLLING MALARIA.

There is a popular saying that if there were no mosquitoes there would be no malaria. This is true, mosquitoes are blood feeders. If they happen to bite an individual harbouring some malaria parasites, they suck up these micro-organisms together with their blood meal. Inside the stomach of the mosquitoes, the parasites develop to the infective stage. When the same mosquito, in search of blood, bites a healthy person, it transfers these parasites into the new host. This individual then develops malaria. If we can control mosquitoes, then we can control malaria.

But can we control or get rid of mosquitoes? Of course we can, if only we would approach the problem with a sense of responsibility. We can control mosquitoes if every citizen of Nigeria sees to it that there is no stagnant water around his home. We can control mosquitoes if every citizen of Nigeria makes use of modern toilet facilities and stops indiscriminate pollution of our environment with urine and faeces. We can control mosquitoes if every citizen of Nigeria obeys the rules of simple hygiene; washing the hand after going to toilet, keeping the home and its surroundings clean, and eliminating

houseflies by burning or burying organic waste matter. We can control malaria if every citizen of Nigeria stops contaminating our water sources. We can control malaria if every citizen of Nigeria reports cases of infection immediately to the nearest hospital for proper diagnosis and effective treatment.

(Adapted from the article "Help Check The Menace" by Dr. Chuks Ejezie, in the Daily Times, February 9, 1983).

Comprehension question

Answer the following questions:

1. A healthy individual develops malaria when
   a. he comes in contact with individuals habouring malaria parasites.
   b. he has a meal containing malaria parasites.
   c. he is bitten by a mosquito carrying malaria parasites.
   d. he does not wash his hands after using the toilet.
2. Mosquitoes become dangerous to man when
   a. they feed on blood.
   b. they go in search of blood.
   c. they suck up parasites into their stomachs.
   d. they go into the stomach.
3. Nigerians can control mosquitoes if only they have a sense of
   a. determination
   b. responsibility
   c. courage
   d. willpower.
4. The following measures will help to control malaria
   a. elimination of stagnant water and use of toilet facilities.
   b. obeying rules of simple hygiene.
   c. reporting cases to the hospital immediately.
   d. all of the above.
5. The writer's purpose is to
   a. persuade us that malaria can be brought under control and that we can do it.
   b. warn us of the dangers of malaria.

c. inform us of the existence of mosquitoes.

d. remind us that malaria is a deadly disease.

6. Do you think Nigerians obey the rule of simple hygiene?

7. What should we control if we want to get rid of malaria?

8. How do mosquitoes spread malaria?

PASSAGE - II

MY CHILDHOOD

Lubuwa was a good place in which to live. Old Mr. McMinn, whom we called grandfather, my father and the other missionaries had created out of nothing a busy community of order and peace. I look back upon it with a deep thankfulness realizing how much I owe to my early training in that place. Although we were five children in my family, I never remembered sitting down to a meal with just ourselves present. There were also numerous guests and visitors in our home. During the term, there were always boys with us, sons of my father's friends who could not find school fees. My father out of kindness took them in.

After my father's death, my mother expected everyone of her children to help her in keeping house and home together. Though I was a boy, I was made to do every type of work around the house and in the garden. I learnt to carry water from the well two miles away. I learnt to kneel by the grinding stone and grind the grain for the evening meal. I learnt to sweep and clean the cooking pots and wash my own clothes and iron them as well. There was firewood to be gathered from the forest and always work to be done in carrying poles to build the grain barns and the chicken houses.

There was no universal free education at that time. Every parent had to find fifty kobo a year. Just before my father died, I had been ill and unable to attend the opening of school. When I did at last present myself to school, the teacher asked for my fifty kobo. I told him I had no money and he sent me back to my mother to get the necessary money. I ran crying to her but she had no money in the house and she cried with me. Fortunately, a kind neighbour lent us the money. A child could lose his education for small things in those days.

(from Zambia Shall Be Free, by Kenneth Kaunda).

Comprehension questions

1. How many children were in the family ?
2. Who often stayed with them ?
3. What did he learn from his father ?
4. What did he learn from his mother ?
5. How far did he often go for water ?
6. Was education free in those days ?
7. Did he always have money needed ?
8. Why did all the children have to help ?

APPENDIX VI

Reading Comprehension Test for Students with Learning Disabilities (JSS 2)

Part A: (Personal Data)

1. Name of Student:_____
2. Name of School:_____ _____
3. Class:_____
4. Sex: Male ( ) Female ( )
5. Parents' Occupation:
   i. Father:_____
   ii. Mother:_____
6. Age:_____
   Your Mother Tongue:_____ _____
7. Your First Language:_____

PART B

(WORD IDENTIFICATION AND PRONUNCIATION) 20 MARKS

Instruction:

Identify by pronunciation twenty (20) underlined words and phrases in the two comprehension passages written below:

COMPREHENSION PASSAGE I

THE LETTER WRITER

The people of Ama village, Ohia hamlet and other nearby hamlets used to come to Mr. Okafor to get him to write letters to their relatives in different parts of the country. He wrote for them at least fifteen letters each week. It was just at the beginning of the term that Mr. Okafor had an idea. People everywhere were writing to their relatives in the army asking them to come home as quickly as possible. Mr. Okafor could not cope with the demands being made on him, so he made Eze come to school every Saturday to write

letters for the people who wanted them written. At first, people only laughed when Mr. Okafor told them little Eze could write their letters for them. But Mr. Okafor was a clever man. He wanted to prove to them that Eze could write anything they said. So he made Eze write the letters in the school. When he finished each letter, the owner went with it to Mr. Okafor's house. There, Mr. Okafor read what Eze had written; the people saw that he wrote what they said word for word – their sentences, exclamations, idiomatic expressions and proverbs. Soon they were convinced that he was good; some said he was as good as Mr. Okafor himself. (*From Eze Goes to School, by Onuora Nzekwe and Michael Crowder).*

COMPREHENSION PASSAGE II

EZINMA

Ekwefi has suffered a good deal in her life. She had borne ten children and nine of them had died in infancy, usually before the age of three … At last Ezinma was born, and, although ailing, she seemed determined to live. At first Ekwefi accepted her, as she had accepted others – with listless resignation. But when she lived on to her forth, fifth and sixth years love, returned once more to her mother, and with love, anxiety to nurse her child to health, she put all her being into it.

She was rewarded by occasional spells of health during which Ezinma bubbled with energy like fresh palm wine. At such times, she seemed beyond danger. But all of a sudden she would go down again. Everybody knew she was an 0gbanje. These sudden bouts of sickness and health were typical of her kind. But she had lived so long that perhaps she had decided to stay. Some of them did become tired of their evil rounds of birth and death, or took pity on their mothers, and stayed. Ekwefi believed deep inside her that Ezinma had come to stay. She believed because it was that faith alone that gave her own life any kind of meaning. *(Adapted from Things Fall Apart, by Chinua Achebe).*

PART C

(Reading and Making Sentences with Words)

30 Marks

Instruction

Read the two comprehension passages I and II, and then use the following words in short sentences of your own:

i. village:_____

ii. hamlet:_____

_____

iii. relatives:_____

iv. country:_____

v. army:_____

_____

vi. infancy:_____

_____

vii. determined:_____

_____

viii. decided:_____

ix. pity:_____

_____

x. faith:_____

_____

PART D

(Written Comprehension)

50 Marks

Instruction:

Read the two Comprehension passages (i) and (ii) in part B. Then answer the following questions on the passages.

INSTRUCTION ON PASSAGE I

QUESTIONS: (tick one answer in question 1-5 then answer question 6-10 in your own sentences)

(25 Marks)

1. Mr. Okafor wrote

(a) 50 letters a week

(b) 5 letters a say

(c) 15 letters a week

(d) 25 letters a week

2. Mr. Okafor's idea was that

(a) relatives could come and write the letters

(b) Eze could write the letters

(c) he himself could write the letters

(d) the villagers could walk to the next hamlet to send their messages.

3. The people laughed at Mr. Okafor because

(a) they didn't believe a small boy like Eze could write

(b) they liked the letter heads

(c) they came to enjoy a party

(d) the letters were funny

4. According to the writer, Mr. Okafor was

(a) a busy man who understood the people's needs

(b) a lazy man who hated extra work

(c) a harsh man who forced Eze to come to school on Saturday

(d) a proud man who felt he was very good.

5. The tone of this passage is

(a) sad

(b) worried

(c) cheerful and optimistic

(d) violent

6. What kind of teacher do you think Mr. Okafor was?

7. What lesson did he teach the villagers?

8. Why did Mr. Okafor use Eze to write letters for the villagers?

9. Do you think the villagers were satisfied with what Eze wrote?

10. Suggest another title for the passage.

INSTRUCTION ON PASSAGE II

QUESTIONS: (tick one answer in question 1-5; then, answer question 6-10 in your own sentences)

(25 Marks)

1. How had Ekwefi suffered?

(a) She had too many children

(b) She couldn't feed the children

(c) She had lost three children

(d) She had lost nine children

2. Why did Ekwefi love Ezinma?

(a) Ezinma seemed determined to live

(b) Ezinma was a bright girl

(c) Ezinma was a kind girl

(d) Ezinma was a hard worker

3. How old do you think Ezinma was?

(a) Three years old

(b) Ten years old

(c) Nine years old

(d) Over 6 years old

4. According to the writer, Ekwefi believed her daughter would live because

(a) Ekwefi had no other choice

(b) Ezinma loved palm wine

(c) Ezinma was very energetic

(d) Doctors had found a cure for her illness

5. When the writer says 'all of a sudden she would go down' he meant.

(a) Suddenly she would become ill

(b) She went downstairs quickly

(c) Suddenly she fell down

(d) She ran quickly down the road.

6. Was Ezinma truly an Ogbanje as believed?----------

7. Why did Ekwefi put all her being into nursing Ezinma?----------

8. What was the reward Ekwefi get from putting all her being into nursing her daughter?----------

9. Why was Ekwefi self-assured that Ezinwa has come to stay finally?----------

10. Suggest another title for the passage.----------