

# Effects of Segmentation as a Word Recognition Strategy on the Reading Performance of Pupils with Reading Difficulties in Two Primary Schools in Tubah-Sub Division, North West Region of Cameroon

**Yigha Comfort Nabi**

The University of Bamenda, Faculty of Education

**Abstract:** The study set out to investigate if segmentation as a word recognition strategy has an effect on the reading performance of learners with reading difficulties. The motivation for the study arose from the researcher's observation that pupils leave primary schools and go to secondary schools when they can neither read nor spell simple words, and they even find it difficult to sound the letters of the alphabet. A sample of 50 pupils was purposely selected from two primary schools (a government and a private school) and data were collected with the use of four instruments: a reading readiness assessment test, an oral reading test for pupils with reading difficulties, an observation check list and teacher's records of pupils' performance. The study adopted a true experimental research design. The type of true experimental design used in the study was the pre-test post-test only control design with random assignment. Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 20. Descriptive statistics was used to describe the basic features of the data in the study. Frequency tables were used containing frequencies, percentages and cumulative percentages of the various weighted responses in the experimental study as well as bar charts for clear visual representation of the frequencies and percentages of the observed phenomena. The findings revealed that segmentation as a word recognition strategy, increases pupils' reading proficiency (from 8.0% in the control group to 68.0% in the experimental group).

## **Introduction**

There is a great concern about falling standards in reading. We live in a world that needs everybody to be able to read and write. Our verbal expression of thoughts is not enough. Written words and sentences are needed to carry thoughts, needs and wishes to others over time and distance, through notes or over the internet, to friends on the other sides of the world. It is only through formal education that students who are skilled in these abilities can be produced. In schools in Cameroon children are taught in French and in English languages. Children are given instructions using either French or English and they write examinations using any of these languages. This means that a child who cannot read or write finds difficulties in passing an examination.

## **Background to the Study**

According to Meeks & Austin (2003), reading is therefore a very important skill that children need to acquire in primary schools. We learn to read in order to be able to read to learn with time. Children who cannot read do not follow instructions in examinations. Reading is very important in the teaching and learning process. A child who cannot read will find it difficult to progress in school as such might end up dropping from school.

The 1994 Salamanca Statement and Framework for Action on Special Needs Education asserts that schools should accommodate all children regardless of their physical, intellectual, social, emotional,

linguistic or other conditions. Reading is a purposeful complex, cognitive and social process in which readers simultaneously use their knowledge of spoken and written language, of subject matter, and of their culture to construct meaning from the texts they encounter. It requires decoding, accurate and fluent word recognition, and comprehension of the word, phrase, sentence, and text levels. It is not a technical skill that is only acquired in the elementary grades, but a developmental process (Kucer, 2005).

Camboune and Turbill (1999) define reading as composing meaning from written text. They explain that reading differs from simply word calling – which is being able to say all the words but having absolutely no idea on what they mean. Reading is a very important aspect of learning. It is a means of acquiring knowledge and language, a means of communication and a means of sharing information and ideas. Zimba (2011) revealed that learners need to learn, explore and use language to interact with their parents, siblings, peers and teachers and gather information from the physical and social environments in more sophisticated ways than they need to in preschools. Reading forms the basis for a child's learning without; learning becomes difficult.

Unfortunately, many of our children in primary and secondary schools face difficulties in reading. Fuch, Fuch, Mathes., Thomson, Otaiba, Yen, Yang, Swenson, Braun (2002) state that most commonly, students identified as having learning disabilities have much lower reading abilities than all other students. Following the Salamanca statement, schools are supposed to accommodate children with disabilities and gifted children, street and working children, children from remote and nomadic population, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or groups. The Salamanca statement calls for inclusive education in schools without any discrimination.

Unfortunately, children go to secondary schools when they cannot read fluently. They read with little or no observation of punctuation marks like full stop, commas and semi columns and even when they do, they are unable to understand the texts and so cannot answer questions from them. They sometimes find it very difficult to make letter-sound connections. They get confused with letters and the sounds they represent. This makes the children unable to spell and read. The inability of children to read at a certain level means that they cannot continue school. These in most cases cause some children to drop out of school and become a nuisance to the society and an embarrassment to their parents and even to themselves later on in life.

Children in primary schools in Cameroon find difficulties learning the alphabet or letters order, segmenting words into individual sounds or blending sounds. They read inaccurately and show a lot of difficulties in reading out aloud and associating individual words with their correct meanings. Children find it difficult to differentiate between given homophones. They get confused with words like two and too, him and hymn, bean and been when reading or spelling. They find it difficult in reading words with silent letter sounds like g in sign, and the silent / b / in **bomb**. Words like dog or cat employ one letter for each phoneme in the spoken form of the word. But sometimes two or more letters will correspond to one phoneme making it difficult for the learners to read. Most of the children in primary schools find it difficult to read words with two or more letters forming one phoneme like / tʃ / in **chips**, / f / in **phones**, / ð / in **bath** and / u: / in **moon**. Reading words where the final / e / is used to change the middle vowel like in bit to **bite**, tap to **tape** and rat to **rate** is usually very challenging to struggling readers. Words like 'knife' and 'know' are not usually well pronounced as they are pronounced with the sound / k /. Struggling readers in most cases spell them beginning with the letter 'n' leaving out the letter k at the beginning of the words.

The 'word' heat contains four letters but only three are sounded. It is the same with the word cheat that has five letters and only three phonemes represented by / tʃ /, / i: / and / t /. Children in primary schools are usually confused when encountered with such situations. At the morphemic level of presentation, children face a lot of difficulties in separating the 'root morphemes' from the 'bound morphemes.' A word like trust is a one morpheme word, but trustful contains two morphemes, trust and ful while distrustful is a three – morpheme word while distrustfully adds the fourth. Children in primary schools find it difficult separating such words into their constituted morphemes; blending

the phonemes together to read is usually even more difficult for them. All these irregularities, inconsistencies, and multiple levels of correspondence in English spelling, undoubtedly create problems to the struggling readers.

Some people attribute children's inability to read (dyslexia) to teachers' teaching methods and strategies. Tambo (2003), states that a primary educational goal is to help students become self-sufficient and responsible citizens by enhancing individual potentials. Some of the teachers are not trained to teach and so are unable to use the appropriate strategies that are needed by a child with reading difficulty to decode words or read. They do not usually use the sequencing strategies during teaching. Breaking down an unknown word into separate parts or sounds makes it easier for a child to read than reading a word that is not separated. Some teachers fail to use picture clues, help readers recognize syllable patterns, apply common phonic rules, or look for word chunks to enable them decode words with ease.

Even the teachers who are trained lack the enthusiasm and the ability to use the proper teaching methods and strategies. As such, some teachers give texts to children that are above their instructional reading levels or methods that are not appealing to their learning styles. Zimba (2011), instituted that to effectively communicate and interact with learners from 7- 11 years, teachers and other adults should use methods that benefit from all sensory information. Tambo, (2003), holds that students are very sensitive to teachers' attitudes towards what they teach and so teachers who are not enthusiastic about what they teach, will find it difficult to make their students enthusiastic to learn. Many teachers have problems with phonics. They cannot sound the letters of the alphabet correctly or read fluently. Therefore, it is not easy for them to impact reading skills in children. This makes the teaching of phonics which is the foundation of reading to become very difficult.

According to Mbangwana (2011), the primordial function of the teacher in the class room is to identify the strengths, weaknesses, and needs of the learners so as to have a better idea of students' conditions, prior knowledge as well as the methods and techniques of learning that have been successful. The fact that Cameroon lacks teachers with the knowledge of special education may have contributed much to the falling standards in reading. Bricker (1995), states that for inclusion to be positive and constructive, attitudes about disabilities need change. This can be fostered through the education and training of teachers. Many schools in Cameroon lack trained teachers.

There are no qualified teachers in schools who can carry out early and careful diagnostic reading assessments for the identification of learners with reading problems so that early instructional intervention measures should be carried out. Teachers lack the needed knowledge and strategies for teaching learners with special needs. They sometimes fail to take into consideration the diversity of the learning needs of their learners during their lesson preparation. Mbangwana (2011) demonstrated that for teachers and educators to counter the phenomenon in variations in learning styles and ability levels, they need to develop and use a variety of teaching strategies, techniques, methods and tools.

To some people, the difficulties faced by learners in reading come as a result of the low academic attainment of teachers. Teachers are poorly paid and this sometimes makes it difficult for them to carry out studies at higher levels in order to upgrade themselves and be able to teach better. Their meagre salaries are not enough to support their basic needs. The buying of didactic materials or acquiring the needed resources for better teaching is always a big problem faced by teachers. Going for further education becomes an uphill task. Their low levels of education seem to be affecting the way they prepare and teach their lessons. Some teachers do not know the cognitive levels of the children they teach.

Some teachers overestimate the cognitive levels of the pupils they teach while others under estimate the pupils' cognitive levels. They give material that is either above or below their cognitive levels making learning difficult. They sometimes fail in breaking down their content into teachable units and also fail to teach from simple to complex. This makes learning difficult for the pupils. Atayo (2000) explains that the training of teachers is very important because it ensures continual efficiency in impacting knowledge to the pupils. A report compiled by Tchombe in 2014 shows that

teachers indicated lack of resources as barrier to quality mainstreaming of pupils with special educational needs. The study also indicated that teachers did not know exactly what kind of resources they needed.

Teachers attribute the difficulties faced by learners in reading to their tender ages. They explain that some children go to school when they are still too young to be able to perform the expected tasks. Pupils in primary schools today seem to be much younger and less matured and their cognitive skill levels are still undeveloped and tender to understand certain concepts. Gesell (1940), states that development and school readiness occur naturally and automatically. He believes that the best practices are for parents to be patient and create a stimulating and an enabling environment that will create development if a child is developmentally unready for school.

The weakness on the side of the government also seems to be the reason behind the reading difficulties exhibited by the primary school pupils. The fact that special education was introduced in Cameroon since the 60s does not mean that it is implemented. According to findings compiled by Tchombe in (2014), there is a lack of real preparedness for inclusive education as pointed out by stake holders. Policy issues raised are more administrative than pedagogical. As a result, current policy does not orient teacher education. Yuh (2014) pointed out that the support and empowerment of regular classroom teachers, particularly, in rural areas will be indispensable for Cameroon as an emerging nation in 2035.

There are many theories on reading. The five important theories that are of relevance to this study are reviewed, Lauren Resnick: Principles of Learning (1999), Jenne Chall's stages of reading development, Brian Cambourne 's conditions for learning (1988-1995), Piaget's theory of cognitive development (1921) and Lev Vygotsky's sociocultural theory (1934- 1987). They are all important in the study because they emphasize the stages involved in reading and the conditions and principles needed for a child to learn. Before children can read, they need to understand the relationship between a symbol or a combination of symbols and the sound or sounds that they represent. The ability to sound out or decode words is an important step in reading. When children correctly sound out a word, they are able to map it to their listening and speaking vocabulary. With a lot of practice children begin to recognize many words automatically. The more words children recognize, the easier it is for them to read.

The understanding of sound/symbol relationships is complicated by the fact that some of the facts in English are represented by some more than one symbol or combination of symbols. For instance, the sound /f/ can be represented by the single consonant f as in fan, fish, the consonant combination of ph as in phone, gh as in laugh. There are many expectations especially when it comes to vowel sounds. For example, the long e sound/ i:/ can be represented by e as in me, ee as in bee, ei as in receive, ie as in believe, ea as in sea, and the e – consonant - silent e pattern as in pete. Furthermore, some letters represent more than one sound, for example the / k / in car and circus and / e / in dead and steak. These expectations faced by beginning and struggling readers make learning to read more and more challenging.

### **Concept of word segmentation**

Wikipedia defines word segmentation as the problem of dividing a string of written language into its component words. According to Yopp (1992) speech segmentation is the ability to hear and manipulate the sounds in spoken words and the understanding that spoken words and syllables are made up of sequences of speech sounds. Badecker, William and Allen (2014) define Speech segmentation as the process of identifying the boundaries between words, syllables, or phonemes in spoken natural languages. The term applies both to the mental processes used by humans, and to artificial processes of natural language processing. In natural languages, the meaning of a complex spoken sentence can be understood by decomposing it into smaller lexical segments (roughly, the words of the language), associating a meaning to each segment, and combining those meanings according to the grammar rules of the language.

## **Statement of the Problem**

Reading difficulties is becoming a serious concern to teachers, parents and researchers. There seems to be some existing relationships between teachers' word recognition teaching strategies and children's reading difficulties. These difficulties are faced by pupils in the areas of reading, writing and spellings. Children go to secondary schools when they cannot sound the letters of the alphabet correctly or read fluently. They read with little or no observation of punctuation marks like full stop, commas and semi column and even when they do, they are unable to understand the texts and so cannot answer questions from them. They sometimes find it very difficult to make letter-sound connections. All these put together negatively affects children's literacy development. When children cannot read, the society is bound to suffer as the rate of drop out from schools will become high forcing the society to experience high dependency rates, low income levels, high crime wave and the children will become an embarrassment to themselves and their parents. Even more, they become a nuisance to the society in which they live. This study sets out to investigate the effects of the teachers' word recognition strategies on reading in pupils with reading difficulties in regular schools. There exist so many word recognition strategies which teachers are expected to use in order to enhance reading in pupils but pupils still have difficulties in reading.

What then could be the causes of the reading difficulties? Is it exclusively a problem of strategy? Is it that teachers do not use integrative approach of word recognition strategies in teaching the pupils? Is it that teachers do not know that the pupils they are teaching have individual differences and have continued to look at them as fools or pupils who cannot change and so should be ignored?

It is from this view that the researcher sought to look at word recognition strategies and effects on pupils with reading difficulties in two regular schools in Tubah Sub Division, North West Region of Cameroon.

## **Research objective**

- Investigate how segmentation as a word recognition strategy affects reading performance of pupils with reading difficulties.

## **Research question**

- How does segmentation, as a word recognition strategy, affect the reading performance of learners with reading difficulties?

## **Hypothesis**

**Ho:** Segmentation, as a word recognition strategy, does not effect on the reading performances of pupils with reading difficulties in regular schools.

**Ha:** Segmentation, as a word recognition strategy, effect on pupils' reading performance in regular schools.

## **METHODOLOGY**

A quasi-experimental design was adopted for the study. According to Amin (2005), quasi-experimental designs are designs in which the equivalence of the experimental and the control groups are provided by random assignment of subjects to experimental and control treatments. The aim of the quasi- experimental design was to be able to compare the mean change in scores or the mean gain in scores obtained by the two groups so that the researcher can be able to determine whether the application of the treatment cause a significant change in the experimental group's scores as compared to the control group's scores. The design was also adopted to establish the equivalent of the groups in order to provide reasonable and dependable conclusion. The type of quasi-experimental design adopted in the study is the pre-test post-test design with random assignment. This type of quasi- experimental design was chosen to enable the researcher know the reading skill levels of the participants (both the control and the experimental group members) before treatment so that after treatment given to the experimental group she will be able to say whether the treatment had an effect on their reading skills or not.

The area of this study covered one sub division in Mezam division (that Tubah sub division) in the North West Region. The North West Region is found within the Western Highlands of Cameroon. It is bordered to the East by the Western Region, to the North West by the Federal Republic of Nigeria, and to the South by the South West Region. Mezam division is divided into seven sub divisions. These subdivisions include Bamenda I, Bamenda II, Bamenda III, Santa subdivision, Bafut subdivision, Bali subdivision, and the Tubah subdivision in which the study was carried out. The main towns in Tubah subdivision are Babanki, Bambui, and Bambili.

The population was classified into two; the target and the accessible population.

The target population was made up of all the pupils with reading difficulties in primary education. However, to make the study more feasible, the accessible population was made up of primary school pupils in Tubah Sub Division.

The sample was made up of thirty (30) pupils (eighteen females and twelve males) who had reading difficulties in Government School Bambili, popularly known as G.S Mushong Mabu and twenty (20) pupils in Lady Martha Primary school (twelve females and eight males). The pupils were all in primary four and were chosen from both the government and private schools. A government and a lay private school were chosen in order to get a true representation of the population and primary four was chosen because it is a transitional class and it is in this class that most children begin reading.

The sample used in the study was selected using the purposive sampling technique

**Table 1: Distribution of the sample population**

Respondents	Participants		
	Males	Females	Total
Government school Bambili (G.S Mushong Mabu)	12	18	30
Lady Martha Primary School	8	12	20
<b>Total population</b>	<b>20</b>	<b>30</b>	<b>50</b>

From table 1, twelve (12) male and eighteen (18) female pupils with reading difficulties were selected in primary four of Government Schools Bambili and eight (8) male and twelve female pupils were selected in Lady Martha primary schools of Tubah Sub Division. The table shows that the total population selected in the two schools was fifty (50).

Four instruments were used for data collection in the study. These instruments were a reading readiness assessment test, an oral reading test for pupils with reading difficulties, an observation check list and teacher’s records of pupils’ performance.

The data collected were analysed using the Statistical Package for Social Sciences (SPSS) version 20. Descriptive statistics was used to describe the basic features of the data in the study. This was particularly preferred because they provide simple summaries of the sample and the measures. SPSS form the basis of virtually every quantitative analysis of data. Frequency tables, percentages and cumulative percentages of the various weighted responses in the experimental study as well as bar charts were used representation of the findings for clear visual representation of the findings. The percentages of the various weighted responses were calculated using the formula below

$$\frac{O P}{E P} \times 100$$

OP=Observed proficiency

EP = Expected proficiency

The responses were weighted as such:

LP=Low proficiency in reading (1-3) letter words

AP=Average proficiency in reading (4-6) letter words

HP=High proficiency in reading (7-10 and above) letter words

The structured items on the observational checklist had response options which were mainly categorical, mutually exclusive and exhaustive. The frequencies and percentages of the observed behaviours in both the control and the experimental groups were analysed descriptively.

## FINDINGS

Findings are presented based on the research question under investigation

How does segmentation as a word recognition strategy, affect the reading performance of pupils with reading difficulties?

**Table 2: Pre-test results for word segmentation and reading difficulties**

<b>Group type</b>	<b>LP(%)</b>	<b>AP(%)</b>	<b>HP(%)</b>
Group A	21(84.0%)	1(4.0%)	3(12.0%)
Group B	25(100.0%)	0(0.0%)	0(0.0%)
<b>Total</b>	<b>46 (92.0%)</b>	<b>1 (2.0%)</b>	<b>3 (6.0%)</b>

Table 2 above reveals that 46 (92.0%) pupils in the pre-test results were identified as having low proficiency in word segmentation as a recognition strategy, an indication of the fact that they had reading difficulties when words were segmented as they could read only 1-3 letter words in the list of words given to them, 1(2.0%) pupil was averagely proficient and only 3(6.0%) pupils had high proficiency in segmentation as a word recognition strategy prior to the introduction of the experimental treatment. In detail, 21(84%) pupils were identified as having low proficiency in word segmentation as a word recognition strategy in group A during the pre-test, only 1(4.0%) was identified as being averagely proficient and 3(12.0%) pupils were seen as having high proficiency in reading.

In group B, 25(100%) pupils were seen as having a low proficiency in word segmentation as a word recognition strategy as they could only read one to three letter words, 0(0.0%) pupil was identified with average proficiency in word segmentation and 0(0.0) pupil was also identified as having high proficiency in word segmentation as a word recognition strategy in the pre-test.

**Table 3: Post test results for word segmentation and reading difficulties**

<b>Group type</b>	<b>LP (%)</b>	<b>AP (%)</b>	<b>HP (%)</b>
Control Group	21(84.0%)	1 (4.0%)	3(12.0%)
Experimental Group	1 (4.0%)	7 (28.0%)	17 (68.0%)
<b>Total</b>	<b>22 (44%)</b>	<b>8 (16%)</b>	<b>20 (40%)</b>

In the post test results when pupils with reading difficulties were taught segmentation as a word recognition strategy (experimental group), only 1(4.0%) had low proficiency in reading as opposed to 21 (84.0%) pupils in the control group with low proficiency in reading. 7(28.0%) pupils were averagely proficient in reading in the experimental group as compared to 1(4.0%) in the control group. Finally, in the experimental group, 17(68.0%) pupils were highly proficient in reading while only 3 (12.0%) in the control group had high proficiency in reading. Summarily, when pupils with reading disabilities were taught segmentation as a word recognition strategy, it helped to increase their reading ability as clearly seen on their performance in the experimental group where they faced less reading difficulties. The total number of pupils in the three sections were 22 (44%) for those with low reading proficiency, 8 (16%) for those with average and 20 (40%) for those with high proficiency in reading.

The findings revealed that segmentation affects the reading performance of pupils with reading difficulties answering research question one which seeks to know how segmentation as a word recognition strategy, affects reading performance of pupils with reading difficulties. This rejects the hypotheses that word segmentation, as a word recognition strategy, does not have effects on the reading performance of pupils with reading difficulties and accepts the hypotheses that word segmentation, as a word recognition strategy, has effects on the performance of pupils with reading

difficulties. This means that if pupils with reading difficulties in regular schools are taught using segmentation strategy they will read better.

This finding goes in line with those of Lauren Resnick's Principles of Learning, Institute effort – learning (1999) which states that sustained and directed effort can yield high achievements for all students. Resnick postulated that students will learn better when they are taught not only what to learn but also how to learn it. He also proposed that learning strategies should be made explicit to students as this will yield better results.

The above finding is also in line with Jeanne Chall's pre-reading stage of the theory of stages of reading development (1983) which postulates that children in the pre-reading stage will read better if they accumulate a breadth of knowledge about letters, words and books. As they develop through this stage, individuals gain control over many aspects of language structure and vocabulary. She explains that individuals in this stage also begin to recognize the rhyme and alliteration in words, that words can be detached into separate parts and that these parts can be blended into whole words.

Also the finding supports by Vygotsky's Socio cultural Theory (1934 - 1987) which states that a child's or novice's thinking is influenced by relationships with others who are more capable, knowledgeable, or expert than the learner. Vygotsky proposed that when a child (or any novice) is learning a new skill or solving a new problem, he or she can perform better if accompanied and helped by an expert than if performing alone – though still not as well as the expert. The finding rejects Jean Piaget's view point of children's independent efforts to make sense of their world.

Besides that, the finding is in line with a study conducted by Foorman, Francis, Fletcher, Schatschneider, and Mehta (1998) which demonstrated the effectiveness of direct instruction in the alphabetic principle as a means of improving word recognition skills.

### **Recommendations**

Based on the findings of this study, it is evident that pupils with reading difficulties need to be taught many different word recognition strategies to enable them develop atomicity in reading. Hence, the following recommendations were made:

Pedagogic inspectors should organize in-service training for teachers already in the field in the form of seminars and workshops. This will improve on their different types of learning disabilities and widen their knowledge of word recognition strategies such as segmentation, use of advance organizers and sequencing which are much needed by pupils with reading difficulties.

Teachers should diagnose the problems of pupils with learning disabilities like dyslexia and attention deficit early enough to enable them successfully go through their academic ladder. To successfully do this, special educators and interventionists should be used more in primary schools where the foundation of education is laid. They will help diagnose the reading difficulties of the pupils and decide whether they should be taught using word recognition strategies like segmentation, advance organizers, sequencing or all.

The government should make provisions for special education courses in teachers training colleges. This will enable teachers to learn word recognition strategies such as segmentation, advance organizers and sequencing which will go a long way to enable them adequately handle the reading difficulties of pupils in primary schools.

### **REFERENCES**

1. Amin, M. E. (2005). *Social science research: Conception, methodology and analysis*. Kampala: Makerere University Printing.
2. Anders, P. L., Bos, C. S. & Filip, D. (1984). *The effects of semantic feature analysis on the reading comprehension of learning disabled students*. Illinois: University of Illinois Pres, Inc.
3. Arthaud, T.J. & Goracke, T. (2006). Implementing a structured story web and outline strategy to assist struggling readers. *The Reading Teacher*, 59(6), 581-586.

4. Ashby, Rayner, K., J., & Pollatsek, A. (2006). The effects of frequency and predictability on eye fixations in reading: Implications for the E-Z reader model. *Journal of Experimental Psychology, 30*(4), 720-732.
5. Atayo, A.J. (2000). *Cameroon educational system*. Buea: Loving World Publishing House.
6. Bean, T. W., Singer, H., Sorter, J., & Frazee, C. (1986). The effect of metacognitive instruction in outlining and graphic organizer construction on students' comprehension in a tenth-grade world history class. *Journal of Reading Behaviour, 28*(2), 153–169.
7. Bricker, D. (1995). The challenge of inclusion. *Journal of Early Intervention, 19*,3,179 – 194
8. Caldwell, J. S. & Leslie, L. (2006). *Qualitative reading inventory*. Pearson Education Inc. Allyn & Bacon.
9. Chall, J. (1983). *Learning to Read: The Great Debate*. New York: McGraw-Hill.
10. Cambourne, B. (1988). *The whole story: Natural learning and the acquisition of literacy in the classroom*. Auckland, New Zealand: Ashton Scholastic.
11. Curzon, L. B. (1990). *Teaching in further education: An outline of principles and practice (4<sup>th</sup> ed.)* London: Cassel Education Ltd.
12. Dahl, K. L., Sharer, P. L., Lora, L. & Patricia, R. (2003). *Handbook of research on teaching the English language arts*. Mahwa, NJ: Lawrence Erlbaum.
13. Demarest, E. J. R., Anderson, L.M., Humphrey, D.C., Farquhar, E. & Gessel, A. (1940). *The first five years of life*. New York: Harper and Brothers.
14. Dowhower, S. L. (1991). Speaking of prosody: Fluency's unattended bedfellow. *Theory into Practice, 30*(3), 166-175
15. Dunston, P.J. (1992). A critique of graphic organizer research. *Reading Research and Instruction, 31*, 57–65.
16. Ehri, L.C. & McCormick, S. (1998). Phases of word learning: Implications for instruction with delayed and disabled readers. *Reading & Writing Quarterly: Overcoming Learning Difficulties, 14*(2), 135-163.
17. Ehri, L.C. (2002). Phases of acquisition in learning to read words and implications for teaching. In R. Stainthorp and P. Tomlinson (Eds.) *Learning and teaching reading*. London: *British Journal of Educational Psychology Monograph Series II*
18. Ellis, A. W. (1987). *Reading writing and dyslexia: A cognitive analysis*. Hillsdale, New Jersey: Lawrence Erlbaum Associates Publishers
19. Ferguson, N. (1992). Explicit teaching of morphemic analysis: *New understanding about writing, reading and learning (2<sup>nd</sup> ed)* Portsmouth, NH: Boynton/Cook.
20. Foornan, B. R., Francis, D. J., Fletcher, J. M., Schatschneider, C. & Mehta, P. (1998). The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology, 90*,37-55.
21. Fuch, D., Fuch L. S., Thomson, A., Otaiba, S., Yen, L., N.J, Swenson, E., Braun. Exploring the importance of reading programs for kindergarteners with disabilities in mainstream classrooms. *Exceptional Children, 68*, 581-586
22. Gajria, M., Jitendra, A., Sood, S., & Sacks, G. (2007). Improving comprehension of expository text in students with learning disabilities: A research synthesis. *Journal of Learning Disabilities, 40*(3), 210-255
23. Goodman, K. S. (1998). *In defense of good teaching: What teachers need to know about reading*. Wars: York, ME, Stenham.

24. Hintzman, D. L. (1986). "Schema abstraction" in a multiple-trace model. *Psychological Review*, 93, 411-428.399
25. Hudson, R.F., Mercer, C.D. & Lane, H.B. (2000). Exploring reading fluency: A Paradigmatic overview. Unpublished manuscript, Gainesville, University of Florida
26. Hyönä, J. & Niemi, P. (1990). Eye movements during repeated reading of a text. *Acta Psychologica*, 73, 259-280.
27. Literacy information and communication system. (n.d.). Print skills (alphabetics) Retrieved from [http://lincs.ed.gov/readingprofiles/MC\\_Word\\_Recognition.htm](http://lincs.ed.gov/readingprofiles/MC_Word_Recognition.htm)
28. Mbangwana, M. A. (2011). Assistive techniques and technology for teachers of disabled persons. In A., B. Nsamenang & T. M. S Tchombe (Eds), *Handbook of African educational theories and practices: A generative teacher education curriculum* (pp.387-394). Bamenda: Presses Universitaires d'Afrique.
29. Novak, J. D. (1980). Learning theory applied to the biology classroom: A useful tool for science education. *The American Biology Teacher*, 42, (5) 280-285).
30. Nsamenang, B. A. (1999). *Human development on educational perspective*. Bamenda: African Educational and Professional Publishers.
31. Osborn, J., Lehr, F. & Hiebert, E. H. (2003). *A focus on fluency*. Honolulu, HI: Pacific Resources for Education and Learning
32. Rayner, K. (1998). Eye movements in reading and information processing. Twenty years of research: *Psychological Bulletin*, 124(3), 372-422.
33. Rayner, K., Ashby, J. & Pollatsek, A. (2004). The effects of frequency and predictability on eye fixations in reading: Implications for the e-z reader model. *Journal of Experimental Psychology*, 30(4), 720-732.
34. Resnick, L. B. (1999). Making America smarter. Education week on the web (online). Accessed 15 August 2016. Available: [://www.edweek.org/ew/1999/40resnick](http://www.edweek.org/ew/1999/40resnick).
35. Stanovich, K. E. (1995). Cognitive processes in early reading development: Accommodating individual differences into a model of acquisition: Issues in Education. *Contributions from Educational Psychology*, 1, 1-57
36. Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, 16(1), 3
37. Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly*, 16(1), 32-71
38. Tambo, L. I. (2003). *Principles and methods of teaching: Application in Cameroon schools*. Buea: ANUCAM Publishers.
39. Tchombe T.M.S. (2008). Managing diversity and differences: The case for inclusive education. *African Journal of Special Education*. 1(1) VII – VIII
40. Tchombe, T.M.S. (2008). Understanding and teaching children with special needs in ordinary schools: Independence is priceless; we can make it. *African Journal of Special Education*, 1(1), 4 – 7
41. UNESCO. *World declaration on education for all* accessed at <http://www.unesco.org/education/efa/background/jomtien/declaration.shtml>
42. Vygotsky, L.S. (1978). *Mind in society. The development of higher psychological processes*. Cambridge Mass. Harvard University Press.
43. Wechsler. (1974). *Wechsler intelligence scale for children*. New York: The Psychological Corporation.

44. Yuh, E. (2014). Supporting the classroom teacher to understand and teach diverse learners in the classroom. *African Journal of Education*, 2 (1) 1-8
45. Zimba, F. R. (2011). The needs of learners aged 7-13 years. In A.B. Nsamenang & T.M.S Tchombe (Eds), *Handbook for African theories and practices. A generative teacher education curriculum* (pp. 141- 150). Bamenda: Presses Universitaires d'Afrique.