

STRATEGIES FOR IMPROVING READING FAILURE AMONG STUDENTS OF SCIENCE AND TECHNOLOGY

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Abstract

The paper identified reading as the badge of intellect and the proof of knowledge, hence reading failure results in academic failure. It identified and discussed a number of factors responsible for reading failure among students and argued specifically for the need to arrest reading failure among science and technology students if they must be able to verbalize the scientific and technological concepts in them. The paper concluded that reading failure is a manifestation of reading problems which invariably amounts to leaning disability, it therefore recommended for improvement of reading failure via a number of suggested strategies such as constant reading practice with a view to improving one's reading technique.

1.1 Introduction

Reading failure occurs as a result of heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of reading ability. Reading failure therefore, is the outcome of reading difficulties and problems, resulting in the inability to interpret consistently, a given passage or reading material by an average normal individual. Over the years, a number of scholars and researchers (Oyetunde 1987:06, Ganjang 1991:17, Fakuade 2001:12-16) have decried Nigeria students' inability to read functionally, a situation they argue is responsible for students' persistent academic failure. Among the four language skills, reading has been singled out as the most important skill because it is the badge of intellect and the proof of knowledge and education. Nwoke (1993:11) sees reading specifically as a strategy used in equipping science and technology students to be able to verbalize the scientific concepts they possess. It is therefore, an indispensable tool students need in order to succeed in academic endeavour and in the wider world of work in the 21st century when the world is fast becoming one global village.

1.2 Factors Responsible For Reading Failure

Kumbin, (1991:16) identifies inadequate teaching of the reading skills as one of the factors responsible for high reading failure among students. She outlines three aspects of reading skills which students need to learn as follows:

- a. Ability to follow direction in written communication.
- b. Ability to answer specific questions on a given passage.
- c. Ability to read for main ideas.

Kumbin's contention agrees with the chief Examiners' report (WAEC 2003:16) on May/June Senior School Certificate which shows that most candidates performed poorly because they failed to carry out the instructions in the examination rubric. Specifically, the report shows that Biology candidates who were asked to explain a biological concept merely gave its definition. In typewriting, Economics, Food and Nutrition and Agricultural Science, candidates wrote long answers where only short ones were asked, and ultimately, ended up failing to answer all the required number of questions. They failed to pay attention to keywords such as either, for or against while many others wrote on both of the propositions. In Literature-in-English, candidates gave straight-forward accounts where the question demanded character sketches and in English Language, adequate attentions were not given to all the parts of the essay questions. Perhaps if these candidates were adequately exposed to enough reading

skills while they were students, the story would have been different. Though this may be attributed to lack of understanding, when misunderstanding becomes consistent, it leads to reading failure.

It is important to state that the importance of critical thinking in students' reading success cannot be over-emphasized. Critical thinking simply means reasoning; that is the higher order mental functioning or the intellectual skills which one brings into the reading of a text. This kind of reading requires the use of logic, experience and world knowledge to arrive at meanings which may not be immediately obvious in the text. According to Thorndike (1971), in the 'Guardian' (Saturday 17 October 2001:23) reading is basically a reasoning process and hence the imperative of teaching critical thinking. He argues that if better readers are desired, the challenge would be to develop ways of teaching students to think while reading. He asserts that it is meager intellectual processes that limit reading comprehension, and not deficits in specific readily teachable skills.

Unoh (1980:12) and Obah (1987:27) show that Nigerian secondary school students manifest among other disabilities in reading, poor reading comprehension. This is attributed to inability to:

- a. distinguish main ideas from secondary ones;
- b. separate relevant from irrelevant details;
- c. extract the gist of a passage;
- d. read between the lines and
- e. read beyond the lines

All these problems can be summed up as inability to think critically in their reading. This therefore, strengthens the case for the need to emphasize *critical thinking* in the school curriculum as a means of achieving comprehension and overall success in reading

A number of approaches to the teaching of critical thinking have been adduced by reading experts. According to Wasserman (1987:1-3), thinking operations can be incorporated into the reading curriculum in three main ways namely:

- a. The activities we give the students
- b. The questions we ask
- c. The responses or reactions we give to students' answer.

The activities we give to students should require higher order mental functioning. We can ask them to compare and contrast stories they have read, or assess the characters in a book. They may also be asked to summarize information from newspaper articles or their textbooks. It is also possible to ask them to classify spelling and vocabulary words or to analyze political speeches for generalizations, attributions or extreme statements. Similarly, they can be given a piece of text to read and criticize either from the point of view of content or of language depending on the aim of the lesson.

Teachers' question should ask students to generate hypothesis, interpret data, make judgments, apply principles to new situations, make predictions based on given information and even to formulate ways to test their predictions about something. Teachers' questions should challenge students' thinking. Giving the filling-in-blanks type of questions may not encourage thinking as it tends to limit students' thinking. This type of question encourages recall of information rather than the processing of it.

As with questions, teachers' responses or reactions can inhibit students' thinking. This occurs when the teacher agrees or disagrees with a students' answer. It can also occur when the teacher rewards an answer either negatively or positively or when a students' confidence is undermined, making him afraid to offer new ideas. A more satisfactory way is for the teacher to ask the student to, first, reflect on his answer and second, to analyze it with some help from the teacher. The teacher can also talk about inconsistencies or assumptions underlying the students' idea, about alternative or about data that support the idea. This method should be used in non-threatening but thoughtful ways in order not to discourage the students.

Unfortunately what happens in most reading classrooms is different from the approach suggested by reading experts because most teachers hardly encourage critical thinking in students. The truth remains that students who are able to think critically achieve a satisfying level of communication with the writer of a given text. It is this perfect communication that enhances intellectual development.

Students are expected to do more reading as they advance in class and this is why they need this skill in order to cope with learning. Critical thinking should not be limited to the teaching of the Use of English but should be incorporated into any kind of curriculum where reading is involved through the processes of classroom interaction. This will encourage students to explore ideas and arrive at greater and deeper levels of understanding than would have normally been the case.

1.3 Need to Improve Reading Failure among Technological Students

Reading failure may occur as a result of ordinary errors committed in the reading process (Anyachonkeya 2004:210) or miscue types (Oyetunde 1987:020). Irrespective of the nature and form, Andzayi (2004:13) describes reading failure simply as a manifestation of reading problem and by implication, a form of learning disability. As a type of problem and difficulty resulting in the process of reading, reading failure can occur at the various levels of phoneme, word, phrase, clause, sentence and beyond. In the process of *learning* to read while *reading to learn*. Walbery (2002:57) believes that students who either still cannot read or find it difficult to read after several years in school are usually regarded as educational cripples. He therefore, suggests early remedial measures.

There is the urgent need to improve reading failures among students generally, considering the recognition of the importance of reading and the fact that proficiency in reading is essential to school success. According to Omojuwa (1991:06), the first national seminar on reading held in Zaria in 1982 drew the nations' attention to the growing crisis of ineffective reading among students in the nations' school system. He attributes the ugly trend to a broad but shallow curriculum, which is why Nigeria has been labeled a non reading nation. He cautions against the practice whereby the English course content of students of science and technology is always found to be broad but shallow and recommends a narrow but deep English course content for this caliber of students considering the fact that they need to read a lot in order to be able to verbalize the Scientific concepts in them.

Okunuga (1979:71) outlines the skills for the attainment of the goals of English for Science and Technology (EST) to include:

- (a) Listening comprehension training in spoken scientific and technological English.
- (b) Reading comprehension and reading training to the satisfaction of science and technological departments to facilitate intermediate study in science and technology.
- (c) The ability to speak scientific and technological English
- (d) The ability to write scientific and technological English.

Science and technology students need sufficient reading skills and constant reading practice in order to overcome reading failure and by implication, academic failure. The problem of reading can be adequately addressed through exposure to different kinds of reading skills such as *skimming* to grasp the idea contained in a passage as well as *scanning* for specific information. Considering the volume of materials which science and technical students need to read in the course of their studies, skimming and scanning techniques can hardly be done without. In addition, they need *extensive* and *intensive* reading for a thorough digestion of reading materials. This is necessary because reading without comprehension or understanding amounts to a wasted effort or in the words of Oyetunde (1993:15) "*barking at prints* and *mouthng*". There is no doubt that what goes on in the name of reading among science and technical related schools can best be described as "*mouthng*" and "*barking at prints*" and hence reading failure is common among these students. This is an issue that poses a lot of challenges to teachers and researchers of English language and literature in the contemporary era. It therefore needs to be addressed squarely and urgently too in order not to allow an already bad situation to grow worse.

1.4 Strategies for Improving Reading Failure

It has been stated that constant reading practice leads to the improvement of the reader's overall scholastic personality (Emenyonu 1992:20). To achieve reading success implies an improvement in one's reading technique. Considering the fact that reading failure can occur at any level (word, phrase, sentence and beyond), it becomes imperative to provide students with ample reading selections as

drills, to facilitate good and successful reading.

A. Phrase-by-phrase Reading

It is undesirable habit to read single words in isolation. On the contrary, an individual who wants to improve on his reading ability should strive to read phrase or ideas. In other words, such an individual should endeavour to read groups of words in rapid succession. Such words should convey an idea or have a unit of thought.

b. Daily Reading Practice

This requires self-discipline in order to make it a habit. The individual needs to put forth earnest effort to achieve this. This is because the exercise is vigorous and hence the temptation to slack or give up may not be ruled out. This strategy is in line with the contention of Anyachonkeya (2004:54) that it is practically by sustained practice and consistency that one will be able to cope and in the process achieve success in reading.

c. Increase Concentration

Efforts should be made to increase concentration as one reads. James (1987:22) provides some tips on how one may increase one's concentration where one finds it hard to do so during reading or study session. She is of the opinion that the reader should have the right motive in reading. He will acquire specialized digestive system that make concentration much easier. She also suggests that the individual should have the intention to concentrate. She adds that intention to concentrate is not just enough on its own for the reader but contends that the reader must do things that will facilitate concentration. He has to read actively in order to get the meaning behind words and, of course use his existing or residual knowledge.

A number of factors or variables make concentration difficult. Poor readers should be aware of these variables and work to overcome them. The Watchtower Society of Pennsylvania (1988:07) lists some of these factors which impede reading. They include physical problems such as vision-loss that has not been diagnosed, changing thought patterns, emotions and hormones, sleep habits, dieting, television and computer influence on the individual. When these variables are not at their equilibrium, balance or at the negative side, they can exert adverse influence on the person's concentration and they are factors that arise as a result of destiny.

d. Vigorous Battle Against Reading Problems

Reading failure can occur as a result of lack of vigorous war against reading problems. The poor reader who has reading difficulty should endeavour to fight a vigorous battle against it through constant and concentrated reading practice.

e. Selection of Book of Interest

The poor reader should try this seeming experiment of selecting a book of interest to be read each day. The text could be an instructional or independent reading material. As he tries this experiment and makes it a habit, gradually he will progress towards successful reading,

f. Keeping Record of Reading progress

This acts as an appraisal schedule which will enable the reader to ascertain his effort to become a good reader especially as it has to do with fast reading. Using this appraisal schedule, the reader should be able to keep record of progress made by counting the words on a full page of his book's fly-leaf. As he does this, he should time himself on the first day of his practice. He is expected to be faithful on the record he may keep on his reading progress. Another good strategy the reader could explore is to read one book, article, essay or story after another in quick succession. The reader, it is reiterated, should be true and faithful in his consistency as he practices reading and the record he keeps.

g. Mental Telegraphy

Under this strategy, the slow reader should adopt what Unoh (1979:38) calls '**a discriminating approach of reading.**' This implies that the reader who learns to engage in rapid reading needs to read selectively. As he does this, he ought to pay a greater attention to salient words and phrases of the selection than the less important ones. According to Miller

quoted in Anyachonkeya (2004:20):

English sentences are 75% redundant. This implies that 75% of words used in English sentences is not absolutely essential for conveying the thought behind each sentence, though they aid grammatical correctness.

Mental telegraphy as a strategy for improving reading failure can be employed when a person engages in skimming. The declarative statement means that 75% of the words used in English sentences are absolutely not essential in passing the information or in conveying the thought contained or embodied in the sentence even though they are germane in enhancing grammaticality, (i.e. in realizing grammaticalness), The seeming non-essential words and phrases may provide parenthetical information used for embellishment or aesthetics of the grammatical structures.

h. Linguistic Sign posts

Linguistic sign posts refer to the familiarity which the reader must establish with basic grammatical structures of English Language. These structures include words, phrase, sentences and paragraphs as he reads any selection. Thus the reader will be able to expect or anticipate the writer on the basis of the reader's linguistic signals, Competence in these linguistic sign-posts will be of immense asset to the weak reader to graduate to a successful reader. Access to these linguistic signposts such as punctuation marks and other technical controls are only possible through constant practice

i. Flexibility in Reading Selections

This implies flexibility of approach which demands that the reader varies his speed of reading bearing in mind that passages or texts have different levels of complexity. For instance, the reader who aims at faster reading has to vary the speed at which he reads different books or selections. This is also applicable to different portions of a book, selection or passage he may be reading. With this approach, he finds himself reading certain sections of the selection rapidly either because they appear familiar or he has acquired linguistic signposts. He also slows down in a way as he approaches difficult sections.

j. Visual Reading

The reader who has no visual ability cannot engage in visual reading. Visual reading involves reading a selection with one's eyes along with one's mind without unnecessary interference of the vocal apparatus. The reader should avoid sounding every word internally, in his mind, as he reads as this will amount to sub vocalization which is a serious psychological reading problem. In visual reading, the reader's eyes pick the lexical items and grammatical categories of the encoded symbols on paper and immediately sends a message to the brain where they are *synthesized* and through mental restructuring, *interpreted* as to whether meaningful or otherwise.

k. Self-confidence

Reading experts (Oyetunde 1986:15-17, Unoh 1979:47, Anyachonkeya 2004:32) are unanimous in the assertion that reading failure is a signal of lack of self confidence on the reader. Self-confidence requires that the reader should frequently assure himself that he has the capacity as any other successful reader, to improve his reading through practice, hard-work and sheer determination to succeed. A reader who convinces himself that he has the *will* to succeed in this endeavour will emerge a successful reader.

According to the Bible and Tract Society of Pennsylvania (2001:04), reading goes hand in hand with recognition. A" individual can work towards successful reading if he broadens out the area of his word recognition. Hence instead of stooping to look at each word, the reader should strive to see several words at a time or what the society calls '*return sweep*'. The society therefore recommends 'public reading' as a way of achieving reading success, while not over-looking the need to make out time to read.

Implicit from the foregoing is the lukewarm and haphazard attitude of the teachers and the taught towards reading. It is therefore the position of this paper that a situation whereby reading is

taught during English Language lessons without recourse to reading skills in *incidental, haphazard* and does not encourage the development of reading skills in the reader.

This invariably, will make student readers to read *specifically* for examinations instead of *generally* for intellectual development.

References

- Andzayi C.A. (2004) "Methods of Teaching Leading" in *Practice of Teaching: Perspective and Strategies*. LECAPS P. 13.
- Anyachonkya, N. (2004). *The English Language Usage: Form and Style* Owerri, Hudson Jude P. 21.
- Emenyonu, P.T. (1992) *Reading and Nigerian Cultural Background*. Enugu: New Generation Books P. 20.
- Fakudae, G. (2001). *A Handbook For Reading Comprehension and Summary Writing Skills*. Yola, Paraclete Publishers PP. 12-16
- Ganjang, R. (1991) *The Inferential Reading Ability of Pre N.C.E. Students of College of Education Gindiri*. NATECEP National Conference Pankshin P. 17.
- Kumbin, C. (1991). "Sources of Reading Failures in Schools". *Journal of Language Arts and Communication*. 1(5) P. 16.
- Nwoke, A. (1993). "The Emergence of English for Specific Purposes". An M.ED Postgraduate lecture university of Jos. Unpublished; P. 11
- Obah, T.Y. (1987). "Improving Reading Ability at the Secondary Level". *Journal of English Studies* NO. 4 PP. 7-16.
- Okunnuga, C. (1991) "Reading Strategies For Reading Success". A Mimeograph PP. 02-08
- Omojuwa, R.A. (1991) "Literacy and Reading in Nigeria". *Nigeria Educational Research Council*. Vol. 5. Lagos NERC Press P.6.
- Oyetunde, T.O. (1993). "Miscue Types Among Primary School Children: Implication for Reading Instruction" *Journal of Educational Studies*, Jos 1(1) PP. 15.
- _____ (1987) *Teaching Reading Comprehension and Summary Writing in Secondary School: Perspectives and Strategies*. Jos: Muscum Press P. 06
- Pennsylvania (2001). *Awake!* New York. Watchtower P. 04
- Thorndike, K. (1971) in *Guardian Newspaper* 17th Oct. 2001 P. 23.
- Unoh, S.O. (1980). *Reading Problems in Secondary Schools: Some Observations and Research Findings*. *Journal of Language Arts and Communication* (1), 1, Ibadan P. 12.
- _____, (1979) "Sense and Nonsense in Development Reading Programme" Zaria: Institute of Education P. 32.
- WACE (2003) *Chief Examiners' Report*. August. PP. 6-9.
- Wasserman, S. (1987). "Teaching for Thinking" in E. W. Cole (Ed) *Reading and Thinking*. New Delhi: Delta Books.