University of Gezira
Faculty of Education – Hasahisa
Department of Foreign Language

The Effect of Using Computer Multimedia on Improving Reading Skills:
A case Study of Basic Schools, Khartoum North, Sudan

By
Salih Osman Hamed Mohamed

August 2012
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A case Study of Basic Schools, Khartoum North, Sudan

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Wad Medani Ahlia

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Faculty of Education – Hasahisa

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<th>Signature</th>
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<th>Name</th>
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<th>Signature</th>
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<tr>
<td>Dr. El Haj Adam Ali</td>
<td>Main Supervisor</td>
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</tbody>
</table>

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Dedication

To my family who are always patient, tolerant and encouraging, especially my wife the greatest inspiration in my life.
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قال تعالى:

(اقرأ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (1) خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ (2) اقْرَأْ وَرَبُّكَ الْأَكْرَمُ (3) الَّذِي عَلَّمَ بِالْقَلَمِ (4) عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ (5))

صدق الله العظيم

سورة العلق الآيات (1-5)
Abstract

Modern visuals has a great importance and considerable role in teaching reading skills for the pupils at basic level because these items could attract the pupils to learn the language. The present study aims at investigating the effect of teaching a remedial reading multimedia program on developing the reading skills of beginner readers, i.e. “poor” fourth year readers, in a primary school in Khartoum. The subjects of the study were chosen from governmental primary school in Khartoum of 60 students randomly assigned to the experimental and control groups, 30 students for the experimental group, and 30 pupils for the control group Pre/post tests were used as a tool to achieve the purpose of study. This pre-test helped in identifying the initial level of the readers in the experimental and the control groups as well as determining their points of weakness. The post-test was used to measure the effectiveness of the proposed program. The design of the study was a control/experimental design. The experiment lasted for about five weeks during the second semester of the academic year 2011/2012. The data of the study was analyzed by using (A.NOVA) Analysis of Variance. Results of the study showed that there were significant statistical differences in the post-test in favors of the experimental group. That was reflected in the improvement of the pupils at the reading sub skills (word, sentence and text levels). This improvement occurred in both “poor” pupils and “good” pupils in the experimental group. Comparing “poor” readers in the control group with those in the experimental group, results showed that “poor” readers in the experimental group made greater gains than those in the control group in their reading skills at “word, sentence and text levels”. The results also of “good” students, of the experimental group on the pre-test were much more higher than those of the control group. The multi-media program was mainly conducted to teach phonic(whole words and reading comprehension ) in a relaxing enjoyable atmosphere. Results showed that the computer software (CD-ROM) designed is an effective tool in developing pupils reading skills at the primary level.
نوان البحث: فعالية استخدام الوسائط المتعددة للكمبيوتر في تطوير مهارات القراءة

الباحث: صلخ عثمان حمد محمد

الدرجة: الماجستير في تدريس اللغة الإنجليزية (2012).

القسم: اللغة الإنجليزية

الكلية: التربية الحصصية

الجامعة: الجزيرة

المستخلص

الوسائط الحديثة والتكنولوجية ذات أهمية كبيرة ولها أثر كبير في تدريس مهارات القراءة بالنسبة لطلاب المرحلة الأولى، لأن هذه الوسائل تجذب التلاميذ وتعمل اللغة. تهدف الدراسة إلى تقسيم أثر تعلم اللغة باستخدام الوسائط المتعددة على تطوير مهارات القراءة للطلاب المبتدئين، والمقصود بهم هنا طلاب المرحلة الأولى، بالصف الرابع الابتدائي في مدينة الخرطوم.

تم اختيار عينات الدراسة من مدرسة حكومية في مدينة الخرطوم من طلاب الصف الرابع الابتدائي (60) طالباً بشكل عشوائي وقسموا إلى مجموعتين، مجموعة تجريبية ومجموعة التحكم، كل مجموعة تضم (30) طالباً. استخدمت الاختبارات الأدبية الرسمية كأداة لتحقيق الغرض من هذه الدراسة. وقد ساعد الاختبار التمهيدي على تحديد نقاط ضعف كل طالب، وقد تم استخدام هذا الاختبار التمهيدي لقياس فاعلية البرنامج المقترح. روعي في تصميم هذه الدراسة أن تكون ذات تصميم تجريبي / تحكمي استمرت التجربة حوالي خمسة أسابيع في فصل ثاني للعام الدراسي 2011-2012 م. تم تحليل بيانات هذه الدراسة باستخدام طريقة التباين (ANOVA) وقد أظهرت نتائج الدراسة وجود اختلاف ملموس في الدراسة لصالح المجموعة التجريبية ونسبة اتخاذ التلاميذ الذين تم اختبارهم في تحليل البيانات. وجدت النتائج أن التلاميذ الذين تم اختبارهم في المجموعة التجريبية تقدمت أكثر من مجموعتي التحكم، وأوضحت النتائج أن ضعف القراءة في المجموعة التجريبية قد يُكتسب قدر أكبر من هؤلاء المنتمين إلى مجموعة التحكم في مهارات قراءتهم للكلمة والمراجعات النصية. كما أن نتائج الدراسة أظهرت أن التلاميذ الذين تم اختبارهم في المجموعة التجريبية كانت أعلى في الإختيار التمهيدي مقارنة بنتائج الدراسة المحمولة للكلمة. كما تُشتمل برنامج الوسائط المتعددة بصورة رئيسة على تعلم الصوتيات لكلمات بأكملها وكذلك في قراءة عناصر الاستعاب والفهم في جو مريح وممتع. أظهرت النتائج أن التطبيقات للحاسب الآلي البرمجية المدمجة على قرص مدمج هي أداة ذات فاعلية وتأثير في تطوير مهارات القراءة لدى التلاميذ في المرحلة الابتدائية.
### Table of Contact

<table>
<thead>
<tr>
<th>Subject</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>VI</td>
</tr>
<tr>
<td>المستخلص</td>
<td>VII</td>
</tr>
</tbody>
</table>

#### Chapter One: Background & Problem

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the problem</td>
<td>5</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>5</td>
</tr>
<tr>
<td>Significance of the study</td>
<td>6</td>
</tr>
<tr>
<td>Limitation of the Study</td>
<td>7</td>
</tr>
<tr>
<td>Definition of terms</td>
<td>10</td>
</tr>
</tbody>
</table>

#### Chapter two: Literature Review

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>11</td>
</tr>
<tr>
<td>Beginning Reading</td>
<td>11</td>
</tr>
<tr>
<td>Characteristics of Good Readers</td>
<td>13</td>
</tr>
<tr>
<td>Characteristics of Poor Readers</td>
<td>15</td>
</tr>
<tr>
<td>What children should learn to be able to Read</td>
<td>16</td>
</tr>
<tr>
<td>Phonemic Awareness</td>
<td>17</td>
</tr>
<tr>
<td>Word Attack</td>
<td>20</td>
</tr>
<tr>
<td>Letter-sound Correspondences (phonic instruction )</td>
<td>23</td>
</tr>
<tr>
<td>Word family</td>
<td>26</td>
</tr>
<tr>
<td>Methods for Teaching Beginning Reading</td>
<td>27</td>
</tr>
<tr>
<td>The phonic Method</td>
<td>27</td>
</tr>
<tr>
<td>The whole word Method</td>
<td>30</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>32</td>
</tr>
<tr>
<td>Multimedia, Introduction and Definitions</td>
<td>35</td>
</tr>
<tr>
<td>Importance of Multimedia in Learning in general</td>
<td>36</td>
</tr>
<tr>
<td>Importance of Multimedia Reading</td>
<td>37</td>
</tr>
<tr>
<td>Studies Related of Beginning Reading (remedial reading)</td>
<td>40</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>Studies Related to the Use of Multimedia Programs in Reading</td>
<td>43</td>
</tr>
<tr>
<td>Summary</td>
<td>47</td>
</tr>
<tr>
<td><strong>Chapter Three : Mythology</strong></td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>49</td>
</tr>
<tr>
<td>Research Design</td>
<td>49</td>
</tr>
<tr>
<td>Subject and the Rationale for Choosing them</td>
<td>50</td>
</tr>
<tr>
<td>The Program</td>
<td>59</td>
</tr>
<tr>
<td>The Treatment</td>
<td>62</td>
</tr>
<tr>
<td>Procedures and Teaching Method</td>
<td>63</td>
</tr>
<tr>
<td><strong>Chapter Four : Data Analysis and Discussion</strong></td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>65</td>
</tr>
<tr>
<td>Statistical Analysis</td>
<td>65</td>
</tr>
<tr>
<td>Results of the Post –Test</td>
<td>65</td>
</tr>
<tr>
<td>Discussion</td>
<td>72</td>
</tr>
<tr>
<td><strong>Chapter Five : Conclusion, Findings And Recommendation</strong></td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>78</td>
</tr>
<tr>
<td>Results</td>
<td>78</td>
</tr>
<tr>
<td>Conclusion</td>
<td>80</td>
</tr>
<tr>
<td>References</td>
<td>82</td>
</tr>
<tr>
<td>Appendix</td>
<td>91</td>
</tr>
</tbody>
</table>
Chapter One
Back Ground & Problem

1- INTRODUCTION

The world has become “a global village” which leads the fact that there should be a common language that all can use and communicate with.

There is redoubt that English was and still is the Most widely used language all over the word. English has been taught in Sudan as a first foreign language. The older generation used to study English in primary state school, but there came an era when English lost its prestige and importance in they failed in English.

Teachers at the preparatory stage in Khartoum complain that a large percentage of student who reach this preparatory stage are unable to read simple sentences and sometimes words. In other instance there was false reading, I-e, student pretended to read when they just repeated words after the teacher.

If there unfortunate batches of students are left them selves, they will continue to be almost illiterate in English. Hence emerged the idea of this piece of research to design are medial program to be teach and enhance the reading skills for “poor” pupils at the primary stage.

From this condition we found out there pupils are demodulated as they sit in class as non-participants, almost neglected by the teacher of English who on him part gave up trying with them because he wanted to finish the assigned syllabus. To motivate there pupils, the researcher thought of using multimedia to arouse their interest and involve them in all the activities that take place inside the classroom, and to teach them to read on their own at home and in the class.

The most direct evidence that shows reading plays an important role in schools is what has been conducted as studies with general population of early readers. Cronin, Farrell and Delaney (1999) examined the nature of the earliest stage of reading by comparing two views about the importance of environmental print in children “learning experiences.”

Two studies were conducted with non-reading per-school children in whom environmental knowledge was assessed and related to word recognition training.
The results supported the view that environment knowledge facilitated word reading.

In their study Bas, et. Al (1998) investigated the effect of teaching text comprehension strategies to children with decoding and reading comprehension problems and with a poor or normal listening ability. In this research, the pre or post tests performance showed program benefits in enhancing student’s level of education.

The study of Abo Rizk (1997) is similar to the above study in the sense that both are concerned with reading for young children. It aimed at identifying reading skills required for children the primary level in Egypt. The designed a reading program for developing some of these skills, the results showed the effectiveness of the program in developing some reading skills in English for primary school students.

Riley (1996) also pointed out the importance of developing reading in the first year of school. The research questioned the range of literacy development exhibited by a number of children at school entry. In addition, it identified the entry skill that most reliably predicts success in reading by the end of the first year of school.

Hatcher et al, (1994) found some differential benefits in word reading form different type of supplemental reading instruction with 7 year old children with reading difficulties. These researchers compared results from 20 hours of training that emphasized, (1) reading in context (2) phonological analysis (3) a combination of reading and phonological analysis, or (4) no-treatment control – children whose entire experimental training was phonological gained the most on phoneme awareness, more than did children in the combined and conditions.

Byrne and fielding – Barnsley (1991, 1993) indicated that phonological training prior to and “specially merged into early reading instruction leads to gain in reading and spelling in most children. Finally, in her study.

Ayres (1993) addressed the emergence of phonological awareness in young children and its predictive capacity of later reading development. The results indicated that phonological awareness and reading are linked in a facilitative
relationship in which phonological awareness enabled children to make progress more quickly than those without such skills.

The notion of “mediated media” is not now. Multimedia is a rather new area in the computer, filed – foreign language classes can make extrusive use of computer – Computer have an important role to play in any reading program, because they can be combined with other media systems- findings of several studies have shown the importance of using multimedia as anew technology in teaching language in general and reading in particular.

Wise, Ring and olson (2000) conducted a computer –assisted remedial program for children (aged approximately 7 to 11 years). This program benefits from accurate speech supported reading phonological training. phonologically trained children scored higher on phonological decoding.

Davidson, Elcock and Moves (1996) also evaluated the effectiveness of a computer system in enhancing the reading attainment of young children.

They suggested that some effective proactive in reading could be given by a computer.

Ailfrangis (1990) examined the state –of – the art of the computer based integrated learning system to assess change in student’s achievement in reading and teacher and student questionnaire. This study supported research on the classroom teacher, but on asset to him.

Case and Marty (1989) described the writing to read instruction system and its implementation in five Albuquerque public schools with kindergarten, first grade literacy program and involved five types of material:

A computer based instructional program, word processing and language – development activities All students partipating in the program made progress above what would be expressed for normal growth.

Two experiments were reported by Beverages and Edmondson (1989) which used a micro computer – driven self- paced reading task to examine the reading strategies of good and poor reader. The main point was to illustrate the use of a potentially powerful diagnostic tool, which would operate on computers available
in school – the main focus of the experiment was on the relationship between reading strategies, reading ability and the length of the textual units which were represented to the children. Reading ability was found to influence reading strategies differently according to whether the text was presented in single words or in phrases.

**Reinking and Schreiner (1985)** in their study investigated theoretical connection between computer technology and current understanding of reading comprehension. To explore this possibility, intermediate–grade good and poor readers read short expository passages in four experimental conditions which varied as to the medium of presentation (the printed page or the computer), the availability of computer–mediated textual manipulations and whether computer or the reader contrated the manipulations. Results indicated that a computer–mediated text can influence reading comprehension and that comprehension was most consistently increased when manipulations of the text were under computer control.

The studied reviewed the role of computer as attaching toll for second language learning ingenerate and reading in particular. However, for the present study multimedia could specially reduce the complexity of the teacher’s task when he/she is trying to conduct a reading class with the students. It might also hold a considerable promise to increase the reading ability of the students.

**1-1 STATEMENT OF THE PROBLEM:**

The problem of this study is that primacy school students reach the end of 6th year primary unable to read words or seduced by the researcher.

The researcher interviewed teachers and supervisors and reviewed objective specified by the ministry of Education for SPINE ! book1 to find out if there were any points of weakness or strength. This pilot study showed that about 60% of the students in fifth years classes were unable to read simple sentences, 20% were unable to read many of the words covered in the syllabus in the fourth grade first semester, and only about 20% were fairly adequate in reading simple sentences and words covered in the syllabus.
The present study has attempted answer the following question:

To what extent will are medial program suing multimedia enhance “poor” primary school student’s performance in the reading Skill?

**Purpose of the study:**

The purpose of the present study was to design are medial program in reading for primary school pupils using multimedia . The purpose of the program was to identify the effect of using a multimedia program on the reading skill of primary school students.

**1-2 Significance of the Study:**

This study is hoped to do solve the problem of pupils who reach the end of the primary stage almost illiterate in English , i.e., unable read properly, it might also motivate those pupils and encourage them to read independently and thus would enhance their self–learning abilities . The results of the study may also encourage other teachers to use multimedia in their teaching.

1-3 Limitation of the Study:

1- A group of poor primary school pupils, the forth grade forth grade pupil in government schools in Khartoum where English is taught as a foreign language .

2- Some reading skills were chosen on the basis of diagnostic –test .

**These may include :**

a- Phonological skills , e.g. teaching sounds and the combination of sounds to make words .

b- Word recognition skill, phonetics.

c- Reading comprehension skills at the literary level e.g., understanding words , sentences, and short texts.]

d-
1-4 **Hypotheses:**

1- There are no significant statistical differences between the mean scores of the control group in the per/post reading test.
2- There are significant statistical differences between the mean scores of the experimental group in the per/post reading test.
3- There are significant statistical differences between the mean scores of the per/post reading test between the experimental and control group in favors of the experimental group.
4- There are significant statistical differences between the mean scores of the “poor” students in the experimental group and their counterparts in the control group on the post reading favoring the experimental group.
5- There are significant statistical differences between the mean scores of the “poor” students in the both groups in the per/post reading test in favors of the post – test.

**Sample :**

A group of 4th how primary (poor) pupils form one of the primary school in Khartoum chosen on the basis of a per/reading test designed and conducted by the researcher in the academic year 2011-2012.

**Research Design :**

The study employed a per/post-test control and experimental group design.

**Methodology :**

1- A diagnostic per/post reading test to find out student’s weakness, and to measure the effect of the program on both the experimental and control group.
2- A computer program for teaching beginning reading skills
Chapter TWO

Review of Literature and Related Studies

2-0 INTRODUCTION

This chapter deals with the process of teaching reading to beginners and also the use of multimedia to teach and improve children’s reading skill. Therefore, it will include several sections or parts.

Part one uliet deals with beginning reading, characteristics of “good” readers and “poor” ones. This section tries to answer the question: “what do the readers’ eyes do when they come to read ‘? “.This section also deals with what children should learn to be able to read the items. of teaching beginning reading (letters, words and reading comprehension): The Phonic and the Whole Word Methods and how both of them help children to recognize words at sight and enable children to decode words.

Part two deals with the importance and use of multimedia in language learning in general and in reading in particular. Part three, which is the final section, presents the related studies about remedial reading and those related to the use of multimedia programs in teaching reading. Both foreign and relative-oriented studies are introduced.

2-1 BEGINNING READING:

According to the “Simple view of reading” proposed by Hoover and Gough (1990) refined by Chen and Vellutino ((1997), reading can be divided into two component parts. One which is unique to reading, namely decoding and one which is shared with spoken Language, namely comprehension . Therefore, the important goal of reading is the attaining of meaning as the result of the inter play between perception of graphic symbols that represent language and their meaning. Thus, reading is an active process in which the reader is trying to “ make sense of the written or printed message.
Scholes (1998) defines decoding as the child’s ability to sound out strings of letters. Decoding is sounding out. It is the ability to treat strings of letters as phonetic transcriptions. That is, to assign to each letter a phonetic value as illustrated in “sounding out”.

Rieben and Perfetti (1991) also state that decoding is a mechanism to help increase the lexicon allowing recognition of new words, but it changes its character as words move from the functional lexicon to the autonomous lexicon. The functional lexicon is simply all the lexical entries that can be accessed through reading. Whereas, the autonomous lexicon has the key property. That is to say, when the students know the connection between the representations of the letters p-e-n-c-i-l, including its pronunciation then the word “pencil” is a functional word for the word “pen”. Thus the letters p-c-n from the word “pencil”, that works as a functional lexicon, will activate the phonemes /p/,/e/ and /n/ for the word “pen”, which is an autonomous lexicon. This may cause entire word families to become autonomous as (cat, hat) or (pot, hot) or (goal, coat) and (light, right).

Harris and Sipay (1979) also define decoding as the use of a variety of cues and skills, including morphemic and phonic analysis, to discover what a printed or written word represents, when it is not recognized at sight. They arrive to the conclusion that decoding is the translation of graphic symbols into their speech equivalents.

Reading is also a process of creating meaning from word symbols. Students at the beginning reading level, while decoding graphic information, should always do so with comprehension. Thus, the emphasis should be on decoding graphic information to understand fully formed but simple language. Whether one comprehends better moral reading, silent reading, or listening seems to be related to how well one can read. Thus students should use language from the very beginning in meaningful and realistic situations. The emphasis is on reading as a process of discovering meaning. Thus, the child must grasp what each letter string represents and must then decide what those words collectively mean (Artley, 1996)
2-3 CHARACTERISTICS OF GOOD READERS:

There are some criteria that serve to distinguish between good readers and poor ones. These criteria are the qualities, characteristics, and behavior of a good reader when he/she reads, also his/her behavior toward facing a new word in a paragraph.

Stuart, Masterson and Dixon (2000) explain that good readers are those who are phonologically aware and who know how speech sounds could be represented by letters; i.e. those with good graphophonic skills. Children with good graphophonic skills are able to use these as the basis for their mental representations of printed words. They can do more than this. They have the Sound of a word in their heads as they come to the printed word on a page. The words in their head can be further analyzed into onset and rime segments and into initial and final phoneme segments. Therefore, children can use their knowledge of sound-to-letter correspondences as a check on whether the word they are saying aloud does correspond to the word printed on the page or not.

Meehan (1998) also argues that a good reader is someone who doesn’t stumble on difficult vocabulary when reading for the class and who can answer all of the comprehension questions correctly. This means that a good reader should read correctly for grasping meaning, thus, he can answer all the questions without making an error.

According to Riley (1996) a good reader is the developing reader who processes print in more and more refined and more efficient ways. In addition, a good reader is the reader who uses to a greater advantage the different strategies available from the text, namely contextual, semantic and syntactic cues as well as orthographic and phonological ones.

Carr and Levy (1990) suggest that the high reader group include readers performing at or above 50 percent relative to the sample of children tested. They continue to consider good readers as the readers whose reading comprehension ability decides their level according to the measure above. They are able to recognize single printed words. The factors of word recognition speed also
differentiate fast and slow readers. Accurate and automatic word recognition skills are traits of good readers.

In addition, Carr and Levy (1990) add that good readers may well be better at predicting from context when they rarely need to use their predictive powers during normal reading activities, because they recognize words so well without the extra help of contextual clues. Good readers are more flexible than poor readers in verifying whether predictions are right or wrong.

Reinking and Schreiner (1985) suggest for the purpose of their study that students who achieve a score greater than or equal to the 75 percent be considered good readers.

Hafner and Jolly (1982) declare that good readers are able to relate some fundamental experiences with language sounds and with the referents and ideas they represent to the symbols that the teacher introduces.

Good readers should also recognize words by sight. This means that the reader has identified the word instantly by the unique configuration of its shape (e.g., elephant) or by the unique combination of its letters together. Therefore, good beginning readers memorize the images of words and decode these words as soon as they are seen, i.e., in an automatic way.

From the above, it is clear that good readers are good at three levels: visual knowledge, letter-sound correspondences, and reading for meaning. To summarize, good readers should have some characteristics. They should balance grapho-phonic and semantic-syntactic systems. Good readers should keep the meaning of the passage in mind while proceeding and should read in broad phrases. Good readers can replace unknown words with fillers that do not alter the general meaning. Finally, good readers should have positive self-concepts as readers, if any of the characteristics stated earlier is weak, then the reader is qualified as a poor one (Bowen, Madsen and Hilferty 1985).
2-4 CHARACTERISTICS OF POOR READERS:

As Wyatt (1984) has reported, poor readers have a tendency to read very slowly, approaching text as a word deciphering task in which it is crucial to establish the meaning of each lexeme before moving on to the next. Therefore, pool-readers have word recognition problems. They can not recognize single printed words. They don’t have accurate and automatic word recognition skill. They have difficulty even in identifying letters. Thus, poor cadet-s are extremely deficient in decoding. In addition, poor readers lack sufficient lexical and grapheme-phoneme knowledge. They have only dim awareness of the phonological structure of their language. This feature of “poor” readers is also asserted by Wentink et al; (1997), who say that the majority of poor cadet-s have a deficit in phonological decoding skills, which at-c converting written symbols into sounds. They also report that these weak decoding skills result in severe problems with rapid automatic processing of words. Thus, “poor” readers have problems at blending the phonemes of a word. Poor readers arc less effective in extracting visual information form the page during a fixation.

In addition, they are able to identify few words from a sentence. So, they are extremely deficient in decoding. Moreover, they lack reading comprehension, so, they are less able to answer question about a text.

Harris and Sipay (1979) also described poor students as those who continue to confuse words of similar appearance e.g., (right and light), (cat and rat), ( pot and put), and repeated practice brings little or no attention that can therefore be concentrated on getting the meaning.
2-5 WHAT CHILDREN SHOULD LEARN TO BE ABLE TO READ?

Harris and Sipay (1985, 86) state that beginning reading instruction in general should aim at the following outcomes of learner behavior. The learner should:

- Have a large sight vocabulary.
- Use a variety of skills to recognize and decode words.
- Read silently with speed and fluency.
- Coordinate rate with comprehension.
- Read orally with proper phrasing, expression, pitch, volume and enunciation.
- Grasp the meaning of increasingly large units, words, phrases, sentences, paragraphs and whole sections.

To meet the general teaming objectives stated above, there is a need for teaching phonemic awareness. Phonemic awareness involves sight vocabulary, word attack strategies, auditory and visual discrimination, letter-sound correspondence, and word family. Following phonemic awareness, children should be able to read and grasp meaning at three levels: word level, sentence level, and paragraph level. All of the word identification skills, basic sight vocabulary, phonics, structural analysis and context can be used together.

2-6 PHONEMIC AWARENESS:

Phonemic awareness is defined by Rieben and Perfetti (1991) as the conscious manipulation of the components of the spoken word. The child can manipulate the word on the basis of some of the graphemes and the fact that phonological representation comes with the word. The essence of a grapheme string is its orthography to acquire some word representations in ignorance of phonemic connections to their letters. Children do acquire phonemic mappings of letters and this serves the acquisition of word representations.

Yopp (1992) adds to the above definition that phonemic awareness is an understanding that speech is composed of a series of individual sounds.
Griffith and Olson (1992) also Cunningham (1998) think of phonemic awareness as the ability to examine language independently of meaning and to manipulate its component sounds. To them, it is the ability to attend to sound in the context of other sounds in the word. It is an understanding of the structure of spoken language. In this respect they are very similar to Adams (1990) who contends that most phonemic awareness tasks are those that involve completely segmenting the phonemes in spoken words and manipulating phonemes to form different words. Children, for example, are unaware that the spoken utterance /cat/ is a word that is made up of a series of sounds / phonemes: /k/, /a/ and /t/, unless they have some degree of phonemic awareness.

According to Cormier and Dea (1997) phonemic awareness allows the decomposition of a spoken word into its sound units-onset and rimes, syllables and phonemes and the decomposition of these units into a spoken form (both analytical and synthetic skills).

Allen (1998) defines rimes as spelling patterns/clusters of letters that often occur together. Rimes are vowels followed by consonants in a syllable, whereas onsets are consonants and consonant clusters. It is according to him, a strong predictor of word achievement, i.e. word decoding.

Tunmier (1991) thinks of phonological awareness as the ability to reflect and manipulate the phonemic segments of speech. Layton, et. al., (1998) concur with the above idea when they refer to phonological awareness in its widest sense as the explicit awareness to the sound structure of spoken language. It is the ability to attend to, and manipulate progressively smaller units of spoken words.

In order to demonstrate this capacity, the individual must temporarily disregard the components of utterances while reflecting on their sounds and make judgments on those sounds.

Brennon and Ireson (1997) Stainthorp and Hughes (1998) and passenger et al (2000) sum the above mentioned ideas when they state that phonemic awareness is a cognitive skill that describes the sensitivity to the sounds of the spoken language; this sensitivity leads the beginner to recognize and manipulate the
sound structure of the language, **Harris and Sipay (1979)** add another perspective to phonemic awareness, which is segmentation, i.e. the ability to analyze a sentence into words or to analyze a spoken word into sub-units such as syllables or phonemes. They add that in doing so, the reader forms a concept that helps him understand that the oral language consists of sentences that are divisible into sub-units called oral sounds.

**According to Ehri (1992)** the reader in the beginning fully analyzes the sounds in the spoken word to match those sounds to the letters in the printed form of words- I’o do this, the reader must know how to segment pronunciation of words into their smallest sounds: onset, which is the initial consonant sound or sounds, and the rime that is the vowel and what follows. The beginner must know which letters typically symbolize those sounds.

**Gaskins and Ehri (1997)** define phonemic segmentation as the decomposition of spoken words into their component sounds. **Gaskin (1997)** also defines segmentation as the decomposition of spoken words into their component sounds. For example, in learning “can” as a sight word, the child segments “can” in its individual sounds: /k/, /a/, and ml. In learning the word “will” also, the child segments three sounds /w/, /i/ and /l/. Similarly, in the words “look, snail, smash, and phone”, there are two letters (i.e. oo - ai - sh. and ph) that represent one of the sounds in each word.

**Stanovich and stanovich (1995)** conclude that the deficit in segmental language skills is sometimes termed a lack of phonemic awareness. Stuart, et al, (2000) state that a beginner who can segment the initial or the final sound of the word may store the corresponding beginning letter at sight as he /she may store the initial and final letters.

Therefore, segmentation is of great importance to phonemic awareness. **Johnston (1998)** illustrates that children should be tutored in phonological awareness at the level of onset-rimes or of phonemes, e.g. c-a -t. Allen (1998) mentions that rimes are spelling patterns or clusters of letters that often occur together. Rimes are vowels followed by consonants in a syllable, whereas onsets are consonants and consonant clusters.
Moustafa and Colon (1999) illustrate that children have to be able to analyze spoken words into phonemes, the smallest units of the spoken sound, which if changed, change the meaning of a word, as the /k/ and /t/ in “cry” and “try”. When /t/ is replaced by /k/, the word will be completely different word : The same will happen with the word “cry” if 1k! is replaced by /t/. They add that in analyzing the spoken word “smiles” into its component phonemes: /s/, /m/, /i/, and/z/, children should analyze it into its component onset and rime: / sm/ and /ilz/ without being taught to do so. Thus, segmenting the word helps the beginner to read this word and to use his knowledge of this word on seeing a new word that he does not recognize which include a part or some parts of the word segmented before.

Therefore segmentation, which is a part of phonemic awareness involves the fact that the beginner understands that sentences are made up of words. Besides, he must know that these words in turn are made up of syllables and syllables are made up of sounds. It is effective for the reader as a beginner to tell the number of sounds heard in a word. Thus, teachers have to raise student’s Phonemic awareness and teach them letter sound correspondence, and also teach them how to segment words into syllables, letters or rimes and onsets. This will help the child to read accurately.

According to all of the above, phonemic awareness involves teaching segmentation, letter sound correspondence, blending, word family and visual and auditory discrimination and sight words.

2-7 WORD ATTACK:

Phonemic awareness and sight vocabulary help children read new words they have never encountered before. By doing so, they use what is called word attack strategy.

Askew and Fountas (1998) illustrate that children actively respond from the start to a new word. Child link his/her information about letters in words recognized before to the new word . The new item can be related to something (some words) that is already known to the child. So, the child first needs to analyze
a new word and then to use parts of known words to help him/her to attack a new
word by making some kind of link between them.

Mitchell (1982) explains that to tackle unfamiliar or distinct words is to
decode the string of letters phonetically and to use the resulting representation of
the word to access its lexical entry.

Clay (1991) observes that beginners of the reading process display a variety
of active and observable behaviors that indicate a set of complex strategies to solve
new words. First, they derive unknown words by analogy form known words.
Then, they begin to partially sound words and complete using meaning cues. Third.
they sound parts and link them to other known words. Thus, the reader quickly
chooses between alternatives to attack a new word.

Alien (1998) agrees with the above observations that when the child comes to
an unfamiliar word, he/she looks at the word carefully and tries to identify the
letters of the spelling pattern. Then, the reader thinks of a known word with that
spelling pattern. Thus, a child can make a guess. When a reader comes up on a
familiar rime in an unknown word, he or she can depend upon a fairly consistent
pronunciation for the rime. This is called the rime-rhyme connection. The rime-
rhyme connection can assist a child to attack unknown words. Readers are taught to
identify spelling patterns within words and to look for a vowel and letters that come
after it. For example, in simple one-syllable words like “light, right, and night”, the
letters “light” form the spelling pattern. Thus the word “pack” can be used to
decode the new word: “sack”, “track”, or “stack”, or using “lake” to read the new
word “make, cake, and shake”. The same can happen with words “cat” and “rat,
hat, and sat”. The students’ chance of knowing the new word successfully would be
increased as it is highly related to what they already know. So, students use the key
word to read new words. As children develop proficiency in spelling and decoding
single syllable words, they are taught to apply it to the multi-syllable words. For
example, the word “interesting” might be spelled or decoded on the basis of (in ) in
+ (her) ter +(best) est. -l- (king) ing.= in + ter + est. + ing interesting.
So, when a child acquires full recognition of some words, he/she applies it directly to new words that he/she meets for the first time in reading. Therefore, when the child is faced with a new word, he/she tries to hunt words where he/she searches through familiar letters or sound patterns or their word banks for words that follow the same pattern. “The reader begins to call to mind an analogous known word to decode an unknown word, he/she looks carefully at the letters that compose each word. For example, when the readers recognize “make or take”, on sight and they meet a new word like “cake or lake”, they are ready to attack the pronunciation of the word that is represented by the same speech sound.

By using analogy, the child can use a key word with the same spelling pattern of the unknown word to read the new one. Attacking word not recognized at sight is functional as this facilitates comprehension. Thus, beginning readers can use context cues to guess the unfamiliar word and its meaning.

**Harris and Sipay (1985)** illustrate that the ability to perceive visual similarities and differences is consistently related to progress in reading. They continue to assume that visual discrimination of letters and words has better predictive value in the development of reading rather than the discrimination of pictures and geometric designs.

**Smith (1988)** shows that the arrays of marks on the printed page that can be read as words can also be distinguished as sequence of letters. So, the “distinctive features” of letters that constitutes a significant difference between one configuration and another must also be distinctive features of words, because words are made up of letters. For example, whatever visual information permits the brain to distinguish between “word” “a” must also permit it to distinguish between hot and not.

Readers especially children can perceive the word on the basis of configuration clues and the features that distinguish and differentiate between that word from the other, “these are the visual clues children use to help them to differentiate between words. Then, they transfer their visual knowledge to new situations. The eyes have an important role for the reader to decide the deference between words and to make use of this knowledge in reading new words that have never been seen before.

**XXVIII**
Mitchell (1982) argues that there is positive evidence that the overall shape of the word (or part of the word) can be used to access its lexical entry. There is also some evidence that associating units with pronunciation and orthographic rules play a role in word recognition. Thus, phonics is also necessary for word recognition and for the reading process.

Thus, auditory discrimination means noting likenesses and differences among the sounds the child hears. Because auditory means sound and sound means phonics, then auditory discrimination is an essence for phonic discrimination. Telling how words are alike or different by sound elements alone is the foundation for phonic analysis.

According to Wagstaff (1998) the ability to manipulate sounds in spoken words is an important phonemic awareness component. Children must hear sounds in order to represent them with letters. During a repeated reading of the rhyme for example, there is some kind of substitution of sounds in words. This is the best way to build the ability of making a difference between sounds.

Thus, the aspects of auditory discrimination in reading involve comparison of speech sounds. Listening to two words that are either identical or different in only one phoneme is the basis for deciding if they are the same or different from each other. The words that sound alike are rhyme words, which direct the auditory attention to the vowel sounds such as (book and look’) or (Tim, Tom and table). Children must be able to hear sounds selectively if they are to apply discriminate sound knowledge for letters in words. So, the major objective of auditory discrimination is to help the beginner to become conscious of speech sounds with sounds within words.

2-8 LETTER-SOUNDORRESPONDENCES(PHONICINSTRUCTION)

Cough, Ehri and Treiman (1992) agree with Goswami and Bryanl’s (1990) the discussion that alphabetic letters represent sounds in words, and an essential part of learning to read and to spell must be to conquer these letter-sound relationships. The reader should know which letter represents which sound. Then, they should be able to read and spell a whole host of words like “cat” wales”.

xxix
Gaskins et al (1997) assure that letter-sound correspondences are the tools that the mind uses to form bonds between the letter- and the word’s Pronunciation held in memory. In a word like “bed”, the reader matches the three sounds /b/, /e/ and /d/ to the three letters. Similarly, in a word like “cat”, the child begins to match the three sounds /k/, /a/ and /t/ to the three letters. Thus, the reader should know that the letters of the word must be represented accurately in their equivalent sounds.

According to Smith (1988) the aim of phonics instruction is to provide readers with rules that will enable them to predict how a written word will sound from the way it is spelled. The value of teaching phonics depends on how many correspondences there are between the letter-s and the sounds of English. A correspondence exists whenever a particular letter (or sometimes a group of letters) represents a particular sound (or absence of sound). Thus, the letter “c” for example is involved in at least four correspondences—with the sound /s/ as in “medicine”, with the sound /k/ as in “car, and cat”, as part of //f/ as in “much” and with no sound at all as in “Scientist”.

Smith (1988) also acids that a correspondence exists whenever a particular sound is represented by a particular letter or letters, as the sounds /f/ can be represented by “f” “ph” and “gh” in “fan, elephant and laugh”. Also, the letter “x” is really a double consonant /ks/ in sounding it out and that the letters “ch” in final position is really a single consonant /k/ as in “socks”.

Heilman et al (1986) mention that in the learning-to-read stage, the 4, learner depends primarily on knowledge of letter -sound relationship which is crucial to identify words “This appears to be the early stage of reading which all children reach before they become successful readers. Furthermore, they add that the objective of using letter-sound relationship is to identify unknown words so that the passage can be read for meaning, not to identify words simply because they are there.

So, teaching letter-sound relationships helps the beginning reader to identify words that he/she closes not recognize in print. When a child associates sound with letters, he/she does not confuse words that are very similar such as “ mommy, monkey, money and maybe” because all these words begin with the letter “m” which represents the sound /m/ .Thus, the child learns that the written symbols
(letters) represent the sounds of words that he/she reads and understands. Thus, the explicit teaching of specific letter-sound correspondences facilitates reading acquisition; as the child needs to associate orthographic with phonological patterns in memory.

**Yapp (1992)** speculates that blending requires children to manipulate individual sounds by combining them to form a word. Given a series of isolated sounds (e.g., /b/, /a/ and /t/), the reader can lend them together to have a word like “bat.” Teaching the learners to blend the sounds represented by the printed letters when he/she meets a word he/she does not recognize is of great importance to the reader. Blending time sounds represented by letter patterns into meaningful words is also another essential part of phonemic awareness.

So, in order to be able to read, children must be able to break a word up into its constituent sounds and also to put sounds together to build up a word. Blending and segmentation go hand in hand to develop phonemic awareness that is in turn a prerequisite for developing beginning reading.

**Kim and Goetz (1994)** argue that when children are beginning to discover written language, they have to distinguish one word form another. The task confronting the child is to discover the rules of recognizing the word when it occurs again. Words, like letters, can be identified directly form the distinctive features that are visual information of print. Immediate word identification takes place when feature analysis allocates a visual configuration. Thus, visual feature lists are established and used so that words can be recognized on sight, without decoding of sound or any other means of naming the word. The learner does not only need to figure out the visual configuration of the word, but also its pronunciation when it is i-cad aloud. Therefore identifying the word as a whole is important as well as its phonics, in fact letter-by-letter identification is unnecessary and even impossible for word identification in normal reading. If the reader does not utilize the visual and the auditory discrimination side by side, he/she will i-cad poorly.
WORD FAMILY:

Moustafa and Colon (1999) illustrate that letter strings that represent rimes are referred to as phonograms or word families such as “ick, ake, at, all, as, an, ale, in, am, ask, and est” Askew and Fountas (1998) report that approximately fifteen-hundred primary grade words include ending phonograms that contain a stable vowel sound. Bear and Templeton (1998) also illustrate that the beginning reader can add and subtract letters to make words. So, he/she may make a series of words form interchanging consonants: for example, “dime, time, lime, line, dine, pine, and fine”.

Furthermore, Bear and Templeton (1998) state that readers begin their learning to read with short vowel word families like “rat, cat, fat, bat, and hat”. After a thorough exploration of word families, students study short vowels in more depth. Word families for different short vowels are combined so that the readers can make generalizations about the short vowel sounds and the CVC patterns. Then, word family lists may include more difficult short vowel patterns as “back, rack/spend, rend/shoes, shift”.

Heilman, Blair and Rupley (1986) state that word family makes use of letter substitution. Substituting initial letters in such words often helps children see and hear the letter-sound relationships.

Stouffer (1980) emphasizes that rhyming words make a child ready to identify words that have similar sound units and can be used in a rhyme. By starting with the rhyme of words or word endings, attention, is focused on vowels. This is helpful because they represent dominant sound carrier. For example, it is useful to know that the sound represented by the letter t” is part of the total sound “cat”, which is similar to “hat, fat, and mat”

2-9 METHODS FOR TEACHING READING:

Two methods are used to teach reading, the phonic and whole word method. Phonics is a term used to denote a teaching method for linking graphemes and phonemes. Phonics is one of several methods that the child may use to unlock words. It is only one method of word sound recognition. It is for the benefit of the
child to integrate phonics with purposeful reading, it improves the ability to read words not encountered by the child before.

**Passenger, et, al, (2000)** assure that children need to acquire a combination of phonemic awareness and to identify the component sound in the target word and phonological memory to store these sounds and match them to the appropriate graphemes (letter-to-sound correspondence).

**2-9-1 THE PHONIC METHOD:**

The “phonic” method seeks to use relationships between the letters of writing and the sounds of speech as a means of acquiring literacy ([Svholes; 1998]). The “phonic” method means teaching sounds and combining the sounds to make words.

**Adam’s (1990)** recommendation that knowledge of letters and sounds, along with phonemic awareness has been shown to be of utmost importance in learning to read.

According to **Cormier and Dea (1997)**, Phonics processing is made of three sets of distinctive component skills: Phonological awareness, phonetic decoding in working memory (letter-to sound associations) and phonological decoding in lexical access (blending).

**Celce-Muriaca (1991)** assures that this method teaches the learner to “sound out” the letters on the page, or more specifically teaches the phoneme-grapheme correspondences, using those associations in decoding words. ‘11w emphasis is on the letter-to -sound correspondences rather than on meaning. Once the learners are able to sound out the letters, they well be able to read the words.

**Rieben and Perfeftti (19991)** confirm that to begin processing graphic cues to read words, children must recognize how print track speech they need to become aware of sounds in words.

**Smith (1988)** states that the aim of phonics instruction is to provide readers with rules that will enable them to predict how a written word will sound from the way it is spelled. The value of teaching phonics depends on how many correspondences there are between the letters and sounds of English. A
correspondence exists whenever a particular letter (or sometimes a group of letters) represents a particular sound (or absence of sound). English is far from predictable as its spelling-sound relationships are concerned. Phonics can be considered as a guide to the way words might be pronounced.

Harris and Sipay (1985) mention that this method tends to provide instruction in blending phonemes, and tends to provide practice in applying decoding skills to words in context. They also assure the fact that the sounds represented by the graphemes may be determined and then blended to get the correct pronunciation of a whole word.

The “phonic” method uses the regular letter/sound correspondences of English to enable the beginning reader to build up the sound of the word from the different letters. This method can work quite well with regular” English words such as: “dog, cat, bag, and gun”.

Harris and Sipay (1979) state that the “phonic” method is more likely to he successful with words having regular grapheme-phoneme relationships than with irregular words. The substitution of one letter or two with the other letters which constitute the word and which are similar units of the other words presented will help the beginning reader to read words which have graphic similarities accurately. The children taught by this method only make little use of semantic cues.

Bowen, Madsen and Hilferty (1985) assure that the “phonic” method focuses on the recognition of spelling patterns. The phonic method assists the reader to recognize and decode into sounds those spelling patterns in English that parallel their spelling. This means that the beginning reader will learn the relationships between letters and sounds. Thus, they will practice sound decoding.

Smith (1988) assumes that phonics can be taught only by the memorization of rules and the sounding out of individual letters. Ideally, phonics is taught in a way that concentrates on patterns of letters, not individual leers that suggest pronunciation.
To sum up, there is a close association between phonemic awareness and the reading skill, particularly in the initial stages of reading. This was proposed by Brennan & Ireson (1997). when they assure that teaching reading is most successful when it is integrated with phonological skills training as the phone method is a term popularly used to denote attaching method for linking graphemes and Wheaton (1997) clarified, it movies of international tasks. It teaches children to recognize the letter and their sounds through letter shape with its sound association. So, the phonic method focuses on auditory discrimination of speech sounds in words. Thus the teacher should start with single consonants at the beginning of whole words, e.g. (cat, rat, hat, mat). The phonic method also concentrates on teaching the difference between simple vowel sounds, e.g., (tin, ten, hen, desk & disk). Moreover, it teaches short and long vowels, e.g. (sit, see & tea). This method is important in teaching onsets (initial consonants or syllables in a word, e.g. /g/ in a word like gain”) & rimes (vowel consonant sequence e.g. lain/ in the same word gain). Therefore, the phonic method teaches students to read and blend individual sounds of letters and letter combinations, it helps students build up the sounds of a word from diligent letter students know the sounds of the word separately, they can add them up to say the void bus, improving children’s phonological decoding will lead not only to improvement in their later fluent word reading, but also, leads to improvement in phonological decoding. This will help children to sound out unfamiliar and new punctured words by analogy.

2-9-2 THE WHOLE WORD METHOD:

The other method that should be used to teach beginning readers is “The Whole Word Method”. The Whole Word Method emphasizes meaning and teaches children to recognize whole patterns, i.e. the look of the word as a whole. It focuses on the readers’ ability to process “individual” words as perceptual units. This method helps children to form “sight words”, i.e. when they see a word, they recognize it at sight and read it as a whole, the word is already in his or her repertoire of vocabulary. Ultimately, this method will encourage,
students to reach the meaning as quickly as possible by guessing from a few known words in the message of the context.

**Harris anti Sipay (1979)** define sight words as those the reader can recognize quickly without resorting to phonemic or morphemic analysis or without processing of component letter sounds. These words may have originally been learned through the use of decoding techniques or sight vocabulary. They assure **Samules’ (1976)** confirmation that automatic word recognition skills are important for reading comprehension. One of the goals of reading instruction is to make the word recognized automatically so that it requires little or no attention.

**Harris and Sipay (1979)**, **Bowen. Et al, (1985)** and **Stahl (1992)** all agree that once words have been introduced, they become recognized words. This process of recognition is automatic, i.e., children recognize words without having to think consciously about their structure or spelling patterns.

**Rowen, et al, (1985)** emphasize the fact that learning automatic recognition of the sight vocabulary is of great importance for beginning readers. Clearly, it is of great advantage for readers to automatically recognize words.

**Heilman, et at (1986)** assure that beginners need to develop and continually expand their sight vocabulary. A sight vocabulary is made up of whole words that are not spelled the same way they sound (e.g. know, they, taught, sought and light) are recognized instantly by the child. These irregular words are taught using the Whole-Word Method.

**Allen (1998)** agrees with the previous views that being able to recognize words that have irregular letter-sound correspondences, such as: (have, where, eight and elephant), allows a reader to devote attention to decoding phonetically regular words (e.g. cat , dog, and hat).

It is clear that there is a general agreement that automatic and accurate recognition of words at sight is important in the early stages of reading acquisition. However, it is not enough for a child to recognize whole words as soon as they al-c seen, but he/she should also associate these words with their meaning in order to have meaningful reading. Thus, the meaning of the words can
be taught through the use of flash cards, TPR, realia, context, description, definition, environment outside the classroom, models, board drawings, synonyms, pictures, wall charts, and finally Arabic translation.

2-9-3 REAPING COMPREHENSION:

Taguchi (1997) states that after giving enough practice in recognizing words rapidly and accurately, the readers should direct their attention to comprehension. So they achieve faster reading in combination with better comprehension.

Reading is comprehension. The reading process is viewed as a search for meaning by both experienced and inexperienced readers. Meaning plays a dominant role in dealing with reading. Meaning emphasizes comprehension is the meaningful interpretation of the printed letters and words.

Shocoles (1998) indicates that reading for most people is the conversion of the written linguistic constructs to meaning, i.e. comprehension. Also, Arthey (1996) views reading as the process of creating meaning from word symbols. The primary function of reading is to create meaning.

Grabe and Grabc (1985) also state that reading is regarded as an active search for meaning. Meaning can not be found in printed words, but in the reader’s ability to draw on personal experiences in response to words. Unless the reader appreciates the purpose of reading (attaching meaning to text), appropriate cognitive skills will be slow in developing. Reading is not naming the words appearing on the page.

Reinking and Schreiner(1985) state that reading comprehension is an active cognitive process requiring the reader to interact with text-based information and to monitor the comprehension quest for meaning.

Furthermore, Hanfer and Jolly (1982) explain that the ability to respond meaningfully to language broadly referred to, as comprehension is the most important aspect of teaching reading. Perceiving meaning requires an awareness of both lexical and structural meaning. Reading comprehension involves thinking with language in response to language stimuli. Reading comprehension in the
reading process requires beginning readers to comprehend the meanings of words, phrases and sentences.

Stouffer (1980) illustrates that as learning reading progresses, the instructional emphasis should rapidly shift from recognizing printed words to recognizing concept development. When children deal with the phonetic elements, they do not merely say a word, but they search for grasping its meaning. The ability to read a word comes from understanding its meaning in context.

According to Harris and Sipay (1979) comprehension is an active process in which the reader brings general knowledge and specific knowledge in the area discussed by the writer to bear on the patterns of words symbolized by the print. The beginner reader needs literal comprehension. As it is the most basic level of comprehension. He makes the least demands on reasoning ability.

Heilman et al., (1986) define literal comprehension as understanding the ideas and information explicitly stated in the passage. This level includes many abilities: knowledge of word meaning, recall of details directly stated or paraphrased in words and knowledge of sequence of information presented in a passage.

Harris and Sipay (1985, P 87) state that the general outcomes of literal comprehension in terms of the beginning readers behavior is that the learner:
Grasps the meaning and interrelatedness of increasingly larger units:

- Understands and recalls stated main ideas,
- Notes and recalls significant stated details,
- Recognizes and recalls the stated series of events in correct sequence,
- Notes and explains stated cause-effect relationships,
- Finds answers to specific questions, and
- Follows printed directions accurately.

According to the above objectives of literal comprehension stated by Harris and Sipay (1985) literal meaning should be achieved at three levels: words, sentences and paragraphs. Good comprehension requires fairly automatic word
recognition. That is because words are the basic units of language. Knowing what most of the words in a sentence mean is a necessity for understanding the thought that a sentence conveys. Words occur in a smaller group (phrases and clauses) and larger groups (sentences) which in turn are organized into paragraphs and a series of paragraphs. Thus, comprehension involves much more than simply knowing the meanings of individual words. It is an understanding of written whole sections.

Hafner and Jolly (1982) explain that understanding involves literal comprehension that is intended by the author. To infer the author’s implied meanings, the reader needs to use the clearly stated information to deduce them. The readers may need to induce a meaning, that is, they may have to read particular facts and come up with a general statement that ties the facts together. They do this when they correctly answer a question such as what kind of person is Mother?” when readers infer, they bring meaning in the form of additional information and the reasoning they do. Beginning readers must be able to reason to determine the meanings of unfamiliar words and to determine the author’s implied meanings. They must be able to see relationships among ideas to develop meaning.

Thus, the reading skill comprises two components. One is word recognition, the reader must grasp what word each letter represents. The other is comprehension, the reader must then decide what those words collectively mean. When readers have mastered the mechanics of the reading process, then, they consider reading as a primary means of acquiring new information. Obtaining appropriate meaning from printed material is the cornerstone of reading. Children’s reading comprehension is of great importance as it helps students better understand the text they acquire while reading. Children have to recognize the primacy of meaning vocabulary over word recognition vocabulary.

2-10 MULTIMEDIA, INTRODUCTION AND DEFINITIONS:

Multimedia is a new born area in the computer field. It is the simultaneous use of more than one media system such as audio, video, graphics, animation and movies. It has been adapted to mean more than a computer with the same of audio or video attachment. It is a new computer technology that enables users to obtain training from computer with interactive audio and video effects. Multimedia technology can provide students with an ideal interactive environment for the study of foreign language (Kjelldahi, 1992).
In the following pages, the definition of the term “multimedia” will be discussed from the point of view of different authors.

Kjelldahi (1992) defined multimedia as a term that refers to a basic information type like text, graphics, image, video or sound. The integration of several media in the same information unit is then defined as multimedia. Thus, the integration of different media into a single document is called multimedia document. Text, graphics, full-motion video, pictures, and sound. Also, Sponder (1993) defined multimedia as the simultaneous use of more than one media such as audio, video, graphics, animation and movies, Herzner and Hocevar (1992) also had the same point of view about multimedia. They illustrated that the integration of continuous media into compound documents like sound, movie and video making compound documents is really multimedia. Boone and Higgins (1992) add the idea of interactive multimedia. They state that it is the non-linear presentation of text, graphics, animation, voice, music, movies or motion video in a unified information-delivery system. It involves the student as an active participant and is applied in an educational setting for any number of instructional purposes.

Ward and Arshad (1992.P.347) concur with Kjelldahi (1992) as they define multimedia “as the name of a supplement devoted to new dimension in sight and sound made possible by fast-moving developments in the world of electronic technology. The term” multimedia” ensures that the concept of multiple, integrated, concurrent communications is understood”.

Foreign language teachers started to feel the importance of using multimedia in language classes. Bailey (1996) reported that foreign language teachers have sought innovative ways to improve the learning and teaching processes by creatively employing computer and related technologies. ‘Multimedia &’ technology others more promise and motivation for demotivated learners. The same idea was stated by.

Sponder (1993) when lie confirmed that technologies as computers offer powerful support for learning as they were used effectively. He continued to say that, for children, marvelous innovations are as wonderful and magic tools to use in class.
Egyptian schools are rapidly entering the technology age. Computers are becoming more and more a part of reading instruction. Computer assisted instruction (CAL) involves a student being tutored by the computer in a particular skill (Blair and Rupley, 1986. P. 515)

2-11 IMPORTANCE OF MULTIMEDIA IN LANGUAGE LEARNING IN GENERAL:

Many articles examined specific instructional materials (software) and offered suggestions for its integration into the curriculum of the English language, such as those by Littauer. (1994) and Pennington, (1993). Technology has, in fact, become an integral part of daily life for every student. Erron (1993) reported that technology plays an important role in the language classroom to improve the quality of instruction. He also added that technology nowadays means the use of the computer to use a multimedia program. Wicks et. al, (1996) considered multimedia as a useful tool) in language instruction.

Boone and Higgins (1992) showed that meeting individual student needs appears to be a Fundamental component in designing and using educational multimedia. He confirms that multimedia, therefore, offers unique possibilities for special education teachers to enhance instruction for students who are unable to read.

Johnston and Milne (1995) pointed out to the fact that teachers routinely bring to the classroom target language movies and audiotapes. These media have great effect on enriching the advanced students’ language who are able to decode a complex mix of both verbal and non-verbal messages. At the beginning levels of language learning, these materials are more problematic because of the limited skills novice students bring to the task of decoding.

Johnston and Milne (1995) illustrated that technology adds its own task demands that are challenging to a teacher. Multimedia holds considerable promise to increase the communicative character of foreign language classroom. He added that multimedia is a new computer technology that enables users to obtain training on a computer with interactive audio and video effects. Multimedia technology can
provide students with an ideal interactive environment for the study of foreign languages. Computer technology is adopted in Foreign language education, especially because it proved to be effective as well as attractive to students.

2-12 THE IMPORTANCE OF MULTIMEDIA READING

Passenger et al. (2000) reported that since reading is an act of communication, it makes sense that students should have access to the most modern communication systems that are available. Computer-assisted instruction through multimedia courses can help students learn and use language in communication, for example, to improve the quality of reading skills.

Hong (1997) stated that one of the most attractive features of multimedia computers is the ability to present authentic communicative language in a dynamic form. One of the major features of multimedia technology is the audio effect. The students hear the pronunciation of a word, a phrase or a sentence. Such sounding can remind the students of the meaning of the word if they temporarily were not able to recognize the written from this audio feature is especially effective for those students whose listening ability is better than their reading ability. The audio function of multimedia is therefore considered convenient and effective in improving students’ reading comprehension. The audio feature is also a helpful tool for students to improve pronunciation and increase vocabulary; in addition, it increases students’ interest in timing, which will certainly enhance their language efficiency. In this way, multimedia technology turns traditional silent reading into a combination of reading and listening activities, which make reading a pleasurable learning exercise.

Schwartz (1995) also stressed the previous point of view stated by Hong (1997). He stated that computer or (C1)-ROM technology can provide rapidly visual, auditory and textual from contexts. The technology of the computer seen is very well suited for language learning. This not only provides audio input for the students, but also allows for visual input. Highly creative and sophisticated listening comprehension activities that are realistic, natural, and culturally appropriate can be designed, going beyond simple listening comprehension.
Reading came to be an important skill at which the computer can be used. Thus several previous studies have proved the importance of using multimedia as a new technology in teaching language in general and reading in particular. This was clearly expressed by Wyatt (1984) who asserted that reading is one of the areas of the curriculum where computer-assisted learning holds the greatest promise. He added that it is necessary for the teacher to choose an average reading speed of presentation. This was the motivating force behind the development of CALL. This can be achieved through the use of a computerized presentation.

**Boone and Higgins (1992)** maintained that teachers can use multimedia programs to improve students reading skills through its power to motivate, hold attitude, present content, and deliver activities that encourage cognitive processes.

**Heilman, et al. (1986)** gave an account of the capacity of using a multimedia computer program. They illustrated that the computer provides graphics, color, animation, music and ability to speak and to respond to the students’ touch on the screen.

**Davidson, et al. (1996)** gave evidence that computers are a beneficial tool to assist the teaching of reading. Computers are capable of giving a large amount of consistent practice. There is evidence to show that the more practice one has of a skill, the more proficient one becomes. The authors evaluated the collectiveness of using the computer in enhancing the reading attainment of young children. They suggested that what is needed to have a comprehensive reading is some effective practice in reading through the use of a computer. **Dowhower (1987)** had also stated this with respect to children’s reading.

**Davis and Lyman-Huger (1997)** also concurred with the previous idea. They added that reading with the computer would be helpful, time saving, easy, and enjoyable. They stated that effective reading instruction requires teachers as well as students to be engaged in fluid interactions with the text.

**Herron & Moss (1993)** emphasized that technological advances in electronic media would undoubtedly affect instruction in the foreign language and literature classroom. They added that multimedia permit simultaneous viewing of picture,
text, and reference tools (in conjunction with audio), which enhances learning in a powerful new way.

Hong (1997) showed that with multimedia computers students spent less than half the time that would be needed with the traditional method to finish reading and answering the accompanying questions. This considerable tune-saving feature apparently increased students’ reading speed and thus allowed more time for them to digest the overall content of the text.

To conclude, it is clear that one way to help students read effectively is to introduce reading texts through multimedia. To be effective, a text must maintain the content as its primary focus while actively engaging readers. When student motivation is high, reading achievement tends to be high as well. Designed computer programs allow the opportunity to provide interactive practice, and reinforce learning with appropriate feedback. This can be done through the features that are represented by multimedia computer programs. The time-saving process speeds up student’s reading pace and thus allows more time for total comprehension.

2-13 STUDIES RELATED TO BEGINNERS READING

REMDIAL READING:

FOREIGN STUDIES:

Dooley, Beverly (1994) conducted a study to find out the effectiveness of a Multisensorially Integrating Reading Composition (MIRC) instructional approach, on the reading of seventh-grade poor readers was examined. The question asked was whether there would be a difference in word attack, reading rate, reading comprehension, and writing of students taught by MIRC and those taught by traditional reading instruction. A total of 179 students enrolled in reading improvement classes in 3 middle schools participated. The instructional treatments, MIRC and traditional reading instruction, were implemented for one semester. Eight students from three standardized tests of reading and writing were selected to measure word attack, reading rate, reading comprehension, and writing. Significant differences between groups were obtained in seven of the eight subtests. MIRC
instruction assisted the seventh grade “poor” readers to enhance their competencies in reading and writing.

This previous study helped the researcher in designing her test and in indicating the “poor” readers in her experimental group, i.e. those who lacked word attack and reading comprehension skills.

Ayres, L. R. (1993) addressed his study to the emergence of phonological awareness in young children, and its predictive capacity of later reading development. His study investigated the effect of three treatment conditions designed to enhance phonological awareness of pre-readers in intact kindergarten classroom: direct instruction, indirect instruction, and direct indirect instruction combined. In addition, the study explored the effect of treatment sequence during the kindergarten school year, with conclusions including times of the year when pre-readers were more receptive to direct and indirect instruction in phonological awareness. All treatments were based upon oral or written literature, and were delivered by one teacher in a typical classroom of twenty-five children.

Results clearly indicated that the type and sequence of training had a measurable effect on kindergarten children’s levels of phonological awareness. Direct instruction produced the most significant effect during both training periods. However, direct instruction was most effective when delivered during the second portion of the year. After a variety of experiences with literature had been experienced by the children.

Longitudinal data collected at the end of the subject’s first grade year revealed a strong and specific relationship between phonological awareness and reading. The strongest associations, therefore the best predictors of later reading development, were the segmentation tests taken in the middle and the end of the year.

Results indicated that phonological awareness and reading are linked in a facilitative relationship, in which phonological awareness enables children to make progress more quickly than children without such skills. Subjects who had training by direct instruction displayed a stronger relationship between phonological
awareness and criterion measures of reading achievement when compared with control group subjects.

Further, the variance in reading attributed to cognitive ability measures for these two groups was surprisingly small. This may indicate that reading for these two groups is more contingent upon phonological awareness than general cognitive ability, it further suggests that the matter in which those readers approach the reading task is different from that of their colleagues who had not received direct instruction.

The previous study helped the researcher in choosing her method of teaching reading and using multimedia with the experimental group. The researcher was convinced that direct instruction in phonics and whole word was very beneficial. Actual teaching and experience with the experimental group supported this conviction. When the classroom teacher tried at first to use multimedia sessions for teaching the two chosen units for the program, it failed. Thus, multimedia with direct phonic instruction was used before teaching long sentences or long paragraphs for comprehension.

**Meyer, Linda A. (1982)** had a study on poor readers. The primary reason for conducting this study was to compare the effects of two types of word-attack correction procedures in The Decoding Strategies Program. Thus, two procedures (word analysis & word supply) for correcting oral reading errors during training in word-attack strategies were examined. Fifty-eight middle school students between 4th and 7th grade served as subjects in the experiment. The correction Reading Placement Test was used to determine if students’ decoding skills were such that they would benefit from the program. The students had been identified as either learning disabled students (I-D) or educationally handicapped.

All students received approximately 20 minutes of phonics instruction each day. The treatment lasted for four months with this highly synthetic phonics approach. After (70) lessons, effects were assessed on both norm-referenced (WRAT & Gray) and criterion-referenced measures
2-14 STUDIES RELATED TO THE USE OF MULTIMEDIA PROGRAMS IN READING:

The notion of” mediated media” is not new. Several studies have showed the importance of using multimedia as a new technology in teaching language in general and reading in particular.

FOREIGN STUDIES:

Wise, IL W.; Ring, J. & Olson R. K. (2000) conducted a study on individual differences in Gains from Computer-assisted Remedial Reading. The present was conducted 94 students divided into groups, 45 and 48, respectively. The put-pose of the study was to find out the difference in effect between teaching comprehension strategies and phonological strategies on students’ reading abilities.

Both groups (aged approximately 7 to ii) spent 29 hours in a remedial reading program. The first group received 22 hours on individualized reading stories and 7 hours learning comprehension strategies in small groups. The second group also received 22 hours in story reading and phonological strategies.

Results showed that phonologically trained children gained more in phonological skills and in-timed word reading. Children with more contextual reading gained more in time-limited word reading. Lower level readers gained more and benefited more from phonological training, than higher level readers. in follow-up testing, most children maintained or improved their levels, but not their rates of training gains. Phonologically trained children scored higher on phonological decoding, but children in both conditions scored equivalently on word reading.

The study again supported the researcher’s conviction of teaching phonics to her “poor” students. it also confirmed the results of her experiment, i.e. the fact that “poor” students benefit more form phonological training first before being exposed to comprehension of longer texts.
Shapira, D (1994) conducted a study enhance word recognition and recall in beginning reading. She used Computer-Based Graphic to design her program. The purpose of this study was to investigate the effect of computer-based graphic representation on the ability of beginning readers recognize and recall words. Four different computer-based programs were developed and designed by the researcher for that purpose. Two consisted of graphic representation of word with pictures and animation, in color and two consisted of orthographic representation alone, in black and white.

Six boys and six girls, selected at random, participated in the study. They were 4 to 5 years old readers, native English speakers, and from middle-class families.

The children were given four on-line lessons, in which they were taught 12 new words (three each time). At the end of the instruction and practice stages they were tested on their ability to recognize and recall the target words throughout, and to read them aloud. In addition, observations were conducted through the sessions with the children, and a semi-structured interview was conducted with each child upon completion of the last lesson.

It was obvious that in most cases the children enjoyed programs consisting of pictorial representation more than the non-pictorial ones. They expressed this by their attitudes as well as in the interviews.

Visual clues helped children to retain and retrieve the words better than did non-pictorial representation. A ‘T-Test (paired, 3-tail) was employed in order to compare the means of correct responses errors made by all the children with the words in the pictorial programs vs. non pictorial during the recognition tests. The immediate recall tests, and the delayed recall tests. The findings indicated that in each category and overall the pictorial representation led to significantly better results than did the non small pictorial representation.

In addition, the participants recalled with greater accuracy words they were taught earlier that were presented to them with pictures and animation, in color, rather than words presented orthographically alone, in black and white. These
differences were expressed both by more errors made as ‘well as by partial recall of words in the non-pictorial programs: the participants recalled them by shape only but could not rand them aloud.

Based on these results, it can be concluded that computer-based graphic representation of new words has a major effect on the ability of beginning readers to recognize and recall words, and read them. This study helped the researcher design her own computer program. The researcher tried to use voice, animation, pictures and colors as much as possible. This study also directed the researcher to investigate the feelings of the experimental group towards using multimedia in teaching reading.

Fowler, W. (1988) had a study that focused on initial stages of the process of learning to read. This study viewed reading as an important skill that has been upgraded from an important skill” to” one of survival”. Therefore, this research tried to assist teachers to identify poor reader and to find to find assistance for their students. Thus, it offered a solution for the teacher to assist his/her poor students i.e. computer assisted instruction.

The results of this study had shown that phonics’ instruction was important in the early stages of reading, but some students simply did not learn the decoding skills needed to advance their reading skills. Those students made very little progress even after they were grouped together and given special reading material. The researcher began to describe those “poor readers as those who could not make the original connections between the visual presentation of a word and its auditory presentation other students could not advance when more complicated combinations were introduced. For others. It seemed that me introduction of irregular forms after being taught explicit phonics was incomprehensible attempts to remember words that they could not sound out, i.e., were “too hard”. The researcher also stated that the decoding skill “phonic approach” was the most common predictor of reading fluency and that without fluency, comprehension was extremely difficult. He added that comprehension tended to deteriorate, because its structure collapsed and what remained was a string of words producing little meaning. Students, who were not 1 automatic, usually read without expression, which was an indicator of
automaticity that is a pail of reading skill. When other students were asked to read, they were able to read with expression but were willfully withholding it. The Iain caused to students who did not find this expressive ability in their oral performances in front of their peers was intense. The researcher recommended that when such indicators of poor decoding skills were available for leaders, the need for remedy should take place in the first weeks of reading instruction. If explicit phonics instruction appeared not to work beyond the second grade, then other remedy techniques were needed.

Computer-assisted instruction, peer tutors, and the “vowel-sound-stick” method were commended by the researcher. It was one method, which seemed to show great promise when using computer-assisted instruction in reading. This method was concerned with carefully selected regular vowels, vowel combinations, and the simplest consonant forms. Students were shown the familiar datte1s that made up simple words. By comparing the common appearance of words, the students made the connection that allowed them to read these words, words that were already defined in their vocabulary by experience. Not only did the use of computer interest students, hey excited teachers as well, and this constituted an important motivational stimulus for students.

The researcher concluded that when a truly interactive “sight-sound” program becomes available, it should be possible to expand students’ decoding skills in a much more efficient manner than currently exists. Such a method makes for effective interaction and a high level of motivational support for reading.

The above study helped the researcher to decide on and define what meant by “poor” students. The results also drew the researcher’s attention to the fact that in implementing her program, she (the researcher) should not emphasize the use of the “Phonic Method” alone, but use both “the Word Method” and the “Phonic Method” in combination, which proved effective.
SUMMARY:

The previous studies, related to reading skills, were of great benefit to the researcher in the present study. Some studies helped in showing that as well as word attack and whole word methods play a major role improving reading skills for beginning readers at the primary stage. Other studies helped the researcher to identify reading skills required for children at the primary level in Egypt. In addition, they shed light on what is happening in other countries to help to teach beginning readers who have some difficulties in reading. The researcher made use of what the previous studies did in designing the test items together with interpreting the results of the diagnostic test. They also assisted the researcher to choose the course objectives and suitable materials.

The other studies related to multimedia helped the researcher in designing the remedial program. They convinced the researcher of the benefits of multimedia, and how it can be used in language classes, especially to remedy the reading skills. They also provided the researcher with clear definitions about “multimedia”. All the previous studies that used multimedia as a tool for teaching indicated that students who were taught with the aid of a computerized program scored higher than those who were taught by traditional methods. Though its power to motivate, through the effective features it offered like animation, sound, music, and visual and auditory contexts, it succeeded in capturing students’ attention.

Most of the previous studies used the pre/post experimental and control group design for their experiment, and it was beneficial to the researcher to adopt the same strategy follow wise. Finally, the previous studies provided the researcher with enough documents and information about the qualities of “poor” readers as “good” readers, and this helped in determining the “poor” readers her program.