

Peripheral Vision, Grammatical Units and Reading Speed

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Abstract

In this paper, the academic English reading speed of 40 Saudi Students at the university level was examined. The study found that students had serious difficulties reading English. Using a pretest, it was found that the main problems encountered were unfamiliarity of the students of the grammatical units and inability to use their peripheral vision. After intervention and using a posttest, the study showed that exposing students to the grammatical units and training them to use their peripheral vision correctly during reading improved their reading speed.

Key words: peripheral vision, reading speed, grammatical units

Introduction

Reading is one of the most important skills that students need to succeed in their university study. They have to read texts and assignments with varying degrees of difficulty and detail. If the student does not read accurately and fluently, he will fail to understand ideas because, as a reader, he reconstructs the message which has been encoded in the text. Moreover, if he reads at a slow speed, he will take too much time in one assignment – a thing that might affect other jobs that require good reading ability. Reading individual words is inefficient. To read faster, student's eyes must move faster over the printed material.

There are many studies in the reading, fluency, reading speed, and reading comprehension (Grabe 2009; Chung and Nation 2006; Anderson 2008; among others). However, the relation between reading rate training and peripheral vision is seldom addressed. Hedge (2003) states that the goal of an English language course may include developing students' ability to read a wide range of texts in English. This long-range goal requires from most teachers to develop independent readers outside EFL classroom. Grabe (1991: 377) sees reading as an "active process of comprehending [where] students need to be taught strategies to read more efficiently." This study will train students on using grammatical units at the language level, and how they use their peripheral vision at the cognitive level. This study is a replication of a part of a study in Mansour (2012), however from a new perspective – training students' peripheral vision to increase their reading speed.

While reading speed is one of the most important factors determining how a student progresses or succeeds in the educational system, very little attention is given to students who have reading difficulties in Bisha Teachers' College, Saudi Arabia. This is unfortunate for it takes little time and effort to achieve significant improvements in students reading speed.

The concept of peripheral vision

Yorkey (1982: 95) defines peripheral vision as "the ability to see words on either side of the point at which eyes focus" Peripheral vision can be trained. People who extend their peripheral vision read faster. How do our eyes see? If we look at a picture or a natural scene, we can see even the details. Similarly, if we look at any paragraph; can we see one word alone? Thus, as readers we must benefit from our eyes' natural ability to see more than one word at a time during reading.

The most striking thing about reading speed is that it requires automaticity and large recognition. This paper will discuss the aspects of reading speed, reading comprehension as well as a cognitive task represented in peripheral vision. One of the best ways that enables students to read faster is to let their peripheral vision work properly.

Instead of focusing your eyes on every individual word, begin by focusing on more than one word at the same time. In other words practice moving your eyes smoothly from one group of words to the next.

Who is the slow reader?

Reading speed is determined in part by how many words one's eyes can see at a single glance. Most of the Word Per Minute (WPM) rates will be 250 WPM. That is the average person reads about 250 words per minute. Alderson (2000: 41) defines poor readers as they "tend use or over-rely on word-level cues." There are three types of readers. First, slow readers read to focus on each word alone before moving to the next one. Second, the eye of the average reader can see up to two words in a single glance. Third, the fast readers focus at the center of the phrase, read three or four words around the head of the phrase, then move to the next phrase.

Studies show that if a reader reads slowly, he may have trouble comprehending what he has read, get bored or discouraged, and easily distracted. Grabe (1991) lists five areas of current research in reading: "schema theory, language skills and automaticity, vocabulary development, comprehension strategy training, and reading-writing relations" (p. 375). This study will deal with the fifth one which is comprehension strategy training. Students will be trained to use their peripheral vision.

Grabe (1991: 379) argues that "many researchers attempt to understand and explain the fluent reading process by analyzing the process into a set of component skills". These skills are as follows:

1. Automatic recognition skills
2. Vocabulary and structural knowledge
3. Formal discourse knowledge
4. Content knowledge
5. Synthesis and evaluation skills
6. Metacognitive knowledge

Participants of the study

The participants are 40 students (males). They have been randomly chosen from the first-level students at the Department of English, Bisha Teachers' College, Saudi Arabia. Those students came from different high schools located in different regions in the southern part of Saudi Arabia.

Hypotheses of the study

The study has the following four Hypotheses:

1. Students read individual words.
2. Students do not use their peripheral vision.
3. Students do not know the division of sentences into grammatical units.
4. If students train themselves to use their peripheral vision, their reading speed will be improved.

Procedures of the study

The study includes three procedures:

1. Pretest: to test students' reading speed
2. Intervention (Explaining grammatical units, and practicing identifying groups of words).
3. Posttest: to test students' reading speed.

Pre-test: Find your own reading speed

In this study, timed reading is used. For more discussion of timed reading, see Chung and Nation (2006). Pretest includes timed reading. It goes as follows.

1. Choose a text
2. Count the number of words in ten lines.
3. Divide the total number by three to find the average number of words per line.
4. You will be timed.
5. Read for three minutes.
6. Count the number of lines you read.
7. Divide the total number of lines by the minutes you read in.
8. Multiply this number by the average number per line. This is your reading speed.

The following table includes the number of words that students have read per minute.

No. of students	No. of words per minute
15	140
10	110
10	90
5	85
Total: 40	Total: 425

Table 1: Number of words read by students per minute in the pretest

The above table shows that the mean of reading speed for each student per minute is 126, 25 (WPM), which is considered as a dangerously low speed.

Intervention

The intervention aims at exposing students to grammatical units. The intervention came in two stages:

Explaining grammatical units

Yorkey (1982: 95) states that "being able to read by phrases requires understanding of what words go together grammatically." Students are introduced to the grammatical units for four sessions (2 hours for each session). The following are the grammatical units explained to the students (Yorkey 1982).

1. *Nominal phrases* (e.g. the economic problem, three important facts, the student who studied English)
2. *Verbal phrases* (e.g. has been playing, was examined)
3. *Prepositional phrases* (e.g. in the college, under these conditions)
4. *Participial phrases* (e.g. preparing the exam, Considering the last point, Arrived late,)
5. *Infinitive phrases* (e.g. to tell the truth, to explore the case)
6. *Dependent clauses* (e.g. when the war ended..., if you study hard,)

Practicing grouping words

The students are instructed as: Reading is basically the understanding of words and their associations to improve your reading speed skill. This is called grouping or chunking. There are natural breaks in language that occur when you speak or read. It is very hard to get a complete idea of the meaning because you are still looking at single words, not whole ideas. For example, the following words do not express a complete thought if they are considered separately.

The, big, black, car, broke, down, in, the, drive, road, and, started, to, move, the, policeman, for, the, new, regulations

Once words are grouped, the meaning is clear.

The big black car, broke down, in the drive road, and started to move, the policeman, for the new regulations

Then students are given one hundred sentences to divide them into their constituent units in one session (for 2 hours).

Post-test

The students have been given a posttest similar to the pretest. The following data has been obtained.

No. of students	No. of words per minute
25	242
8	203
4	192
3	163
Total: 40	Total: 800

Table 2: Number of words read by students per minute in the posttest

Table (2) shows that the mean of reading speed for each student per minute is 200 (WPM). This is a high speed compared to their reading speed in the pretest.

Conclusion

This research showed a very important fact about students who join the English Department, Bisha Teachers' College, Saudi Arabia, which is that they are taught little about reading as a skill in their secondary school education. Hence, they join the university with very little information about reading skill. The mean of the scores of the students in the pretest and posttest showed that there was an improvement in their reading ability after being trained on grammatical units and using their natural peripheral vision that God endowed them with. Poor reading is a problem. However, it can be solved through careful instructions and purposeful practices. The study suggests that teaching grammatical units at earlier levels in the schools might help students to be good readers when they join the university. A further study might be on an experimental and control groups of students who have been taught reading skills in the secondary schools and those who have not in other regions in Saudi Arabia. Moreover, this study might be replicated in other places in the world.

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