# The Effect of Expansion of Vision Span on Reading Speed: A Case Study of EFL Major Students at King Khalid University 

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#### Abstract

The objective of the study is to demonstrate how and to what extent the expansion of vision span could be a decisive factor in enhancing the reading speed of EFL major students in the English Department at King Khalid University while maintaining their previous level of comprehension. The reading speed of students in the English Department at KKU is very low, which hampers their overall proficiency in the language. The sample of the study consisted of two groups (a control group and a test group), each consisting of 25 students who were in the final year of the EFL undergraduate program. The methodology includes comprehension tests to examine the sample for reading speed and comprehension at the beginning of the study. Then training in increasing the span of vision was extended to the students in the test group. At the end of the training, both the groups were tested again for reading speed and comprehension. The study illustrates that the test group increases their reading speed, while the control group shows no increase in reading speed. Comprehension remains unchanged for both the test group and the control group. The study concludes that the techniques adopted for training the study sample can be very efficacious in bringing about a significant change in the reading habits of college-going students.


Keywords: expansion of vision span, eye fixations, reading speed, comprehension score, EFL

## 1. Introduction

Reading comprehension is one of the most important areas for EFL learners. It is the process of recognizing written symbols and understanding the intended message. It requires, first and foremost, the ability to recognize written letters, words and sentences. Next, there is a need for understanding the meaning of the recognized words and sentences and ultimately interpreting the discourse. Reading has been perceived as a practice, a product and a process. In the present study, the researchers consider reading as a process in which the reader plays an active role in the process of reading by expediting it.
Bose (1999, p. 180), while experimenting with the process of reading, discovered that there is a steady increase in the number of words perceived during a single pause of the eye. As words become more familiar, the duration of eye pauses in reading becomes shorter. With ease of reading, the span of recognition of eye pauses should decrease; giving rise to speed in reading. Richards, J. Platt, and H. Platt (1992, p. 347) also stress the point that readers need to be trained to use more effective eye movements when reading.
Sutz and Weverka (2009, pp. 37-38) have precisely explained the process of reading. They discovered eye fixations. They noticed that the eyes do not move at a steady rate across the page but rather by fits and starts. They also discovered that the fewer eye fixations the reader has when reading, the faster he reads. This vividly demonstrates that reading is a process where learners are fully involved, and if learners are trained to increase their visual span, their reading speed will eventually increase. The fast readers can see and process 3 to 14 words in a single eye fixation.
The term 'visual span' was introduced by Kwon, Legge, and Dubbels (2007, p. 2890). They defined the visual span as "the region around the point of fixation within which characters of a given size can be resolved." They noticed that normally sighted adults have a visual span of 7-11 letters. They consider the visual span as the range of letters that a reader can recognize reliably without moving his eyes. Richards, J. Platt, and H. Platt (1992, p. 307) have defined the concept of reading span (also known as visual span) as "The amount of printed text that a person can perceive within a single FIXATION PAUSE, usually described as being between seven and ten
letters spaces." Nagaraj (1996, p. 125) defines eye-span as "the number of words a reader can take in at a time".
A good reader may chunk the sentence into two or three groups by having fewer focuses. Increasing visual span increases the number of words one can read in one focus. This simply means one can look at a group of words as a block. Thus, chunking two words doubles the reading speed, three words triples it, and so on. When a person starts learning, he starts to read letter-by-letter, but gradually he moves on to word-by-word and then line-by-line.

### 1.1 Problem Statement

The researchers, while teaching reading skill at the English Department, KKU, observed that the reading speed of their students is very low. Because reading is one of the basic skills of language learning, low reading speed hampers the students' overall proficiency in the language.

### 1.2 Objectives of the Study

The researchers observed that their students, by and large, lack the ability to read any particular text at a reasonable speed even after completing many semesters of their EFL undergraduate program. The present study, in an effort to find a solution to this problem, aims at achieving the following objectives: training the students for expanding the span of vision while reading, exploring the effects of expansion of vision span on reading speed, and examining the validity of the effect of expansion of vision span on reading speed.

### 1.3 Study Questions

The questions of the study include:

1) What is the effect of the expansion of the vision span on the reading comprehension score?
2) What is the effect of the expansion of the vision span on the reading speed?
3) What is the relationship between the reading speed of the group that received training and the one that did not receive training in the expansion of the vision span?

### 1.4 Hypotheses

The following hypotheses may be put forward for the above-mentioned study questions:
Hypothesis 1: There is a close similarity between the reading speed of both the control group and the test group before the training in the expansion of vision span.
Hypothesis 2: There is a close similarity between the comprehension score of both the control group and the test group before the training in the expansion of vision span.
Hypothesis3: The reading comprehension score of the control group in post-test is very similar to that in the pre-test.
Hypothesis 4: The reading comprehension score of the test group in post-test is very similar to that in the pre-test.
Hypothesis 5: The reading speed of the control group in post-test is very similar to that in the pre-test.
Hypothesis 6: The reading speed of the test group in post-test is higher than that in the pre-test.

### 1.5 Significance of the Study

Written texts are considered a major type of language input that L2 learners receive; however, there has been little research investigating reading speed in the Saudi Arabian EFL context. This study is of great importance because it focuses on the prospect of second language learners' ability to read the written texts with greater speed without any loss of reading comprehension. The significance of the study is also derived from the fact that it is a unique attempt in the Saudi Arabian context to correlate the speed of reading with expanding the span of vision during the process of reading.

## 2. Literature Review

Reading comprehension is considered an essential skill in second language learning. Educators and language experts have already developed and recommended many types of techniques to ultimately improve the speed of reading. In a study conducted by Stone and Colvin (1920), the sample, consisting of 45 college students, received 35 hours of rate training after which an average gain of 74 percent was reported in reading speed. Stone (1922) reported average reading speed gains of between 35 and 108 percent for college students who were given 35 hours of training in reading speed techniques. Lauer (1936) reported that 355 college students were able to increase their average reading speeds from 248 to 325.5 words per minute ( 35 percent) after 20 practice sessions
in reading speed training. In all these three studies, no checks for comprehension were made.
In the empirical literature, it is customary to refer to the correlation between reading speed and comprehension, which ranges from low negative to high positive. Tinker (1958) conducted an experiment to find the relationship between reading speed and comprehension. His sample consisted of 100 high school students. He found that although faster readers were able to comprehend more, the comprehension score was independent of time allocations and the comprehension ranged from low to high. Bryan (1972) experimented with 84 nursing students by dividing them into two experimental groups and two control groups. The experimental groups underwent ten weeks of reading training. The control groups were only allowed to use the library. All of these groups were tested before the training. Post-tests 1 and 2 were conducted after ten weeks and five months, respectively. No differences were recorded for reading speed and comprehension in the scores of the pre-tests. The post-test results recorded significant differences in favor of the experimental group in the domain of reading speed, whereas the control group showed efficiency in comprehension. Krumian (1999) examined the correlation between the reading rate and a number of variables including the mechanics of eye movements. The sample consisted of a group of 32 students who had just completed a specific speed-reading course. The reading speed and comprehension post-test scores were compared with those of the pre-test. Additional data were collected from the same subjects through a survey questionnaire to record comments on the major issues raised in the literature concerning speed-reading. The researcher concluded that speed reading training has the potential of substantially increasing reading rates with overall improved comprehension.
The preceding literature review has shown that numerous researchers have investigated a number of factors concerned with increasing reading speed. The current study, however, involved a relatively new technique-the expansion of the vision span-for bringing about an increase in the speed of reading.

## 3. Methodology

This is an experimental study that intends to demonstrate how and to what extent the expansion of the span of vision could be a decisive factor in enhancing the reading speed of KKU students while maintaining their previous level of comprehension. Therefore, to explore the correlation between the span of vision and reading speed in an EFL context at KKU, the researchers, at the beginning of this study, examined the reading speed and comprehension of a sample of students (divided into control and experimental groups) from the final year of the EFL undergraduate program at KKU. Then a number of training sessions in increasing the span of vision were extended to the students of the test group only, and at the end of the training, both groups were again tested for reading speed and comprehension. According to Sutz and Weverka (2009), experts use two techniques to test how fast people read. One technique measures how many words one reads per minute; the other technique measures the level of comprehension. The words-per-minute test gives a raw measure of how fast one reads, and the comprehension tests ensure that there is no loss of comprehension on the part of the reader. Therefore, in the current study, the validity of the effect of expansion of vision span on reading speed was observed by comparing the reading speed and comprehension scores of both groups before and after the training.

### 3.1 Sample of the Study

The study included two groups (a control group and a test group), each consisting of 25 students who are in the final year of the EFL undergraduate program at KKU.

### 3.2 Instruments of the Study

The tools used for the test include:

1) Two texts of approximately equal length ( 740 and 710 words) and within a restricted lexicon (taken from the website of the publisher of the prescribed course for this level as supplementary material); one was used for pre-training testing and the other for post-training testing.
2) Two sets of 10 comprehension questions about the selected texts.
3) Vision expansion drills (Drills A to N) adopted from Triple Your Reading Speed by Cutler (1993, pp. 47-71) (See Appendix I).

### 3.3 Data Collection

- Results of reading speed and comprehension scores for both groups before training.
- Results of reading speed and comprehension scores for both groups after training.


## 4. Results and Discussions

The reading rate in the native countries is much higher if it is compared with the non-native countries, especially where English has the status of a foreign language. Jordan (1997, p. 17) considers a reading speed of less than 200 wpm as slow, about 250 wpm as average and above 300 wpm as fast. In the context of EFL students of King Khalid University, however, the reading speed is only 75 wpm .

### 4.1 Comprehension Score and Reading Speed before Training

Table 1 shows the reading speed of both groups before the training in words per minute, while Figure 1 shows the comparison between them in terms of percentage.

Table 1. Reading speed

|  | Control group | Test group |
| :--- | :--- | :--- |
| Reading speed (wpm) before training | 76.6 | 73.6 |



Figure 1. Reading speed (wpm) before training

The results indicate that in the pre-training test, the reading speed of the control group is 76.6 wpm , whereas that of the test group is 73.6 wpm . In other words, in the pre-test, there is a close similarity of 51 and 49 percent between the reading speed of the control group and the test group, respectively, and hypothesis 1 thus proves to be true.
Table 2 shows the comprehension score of both groups before the training in words per minute, while Figure 2 shows the comparison between them in terms of percentage.

Table 2. Reading comprehension

|  | Control group | Test group |
| :--- | :--- | :--- |
| Reading comprehension score (out of 10) before training | 7.2 | 6.9 |



Figure 2. Reading comprehension before training

The data obtained shows that in the pre-test, the average reading comprehension score of the control group is 7.2 out of 10 , whereas for the test group, it is 6.9 out of 10 . In other words, in the pre-test, there is a close similarity of 51 and 49 percent between the reading comprehension scores of the control group and the test group, respectively, and thus, hypothesis 2 also proves to be true.

### 4.2 Reading Comprehension Scores of Control and Test Groups in Pre- and Post-Tests

In response to the first research question, which focuses on the effect of expansion of vision span on reading comprehension, very significant results were obtained through SPSS version 20-the software used for statistical analysis. The table below shows the comprehension scores of the control group in both pre- and post-tests.

Table 3. Control group: reading comprehension score in pre-and post-tests

|  |  | N | Mean rank | Sum of ranks | Z | Asymp. Sig. (2-tailed) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Negative ranks | 10 a | 11.15 | 111.50 |  |  |
| Score a - score b | Positive ranks | 9 b | 8.72 | 78.50 | -.677 a | .499 |
|  | Ties | 6 c |  |  |  |  |
|  | Total | 25 |  |  |  |  |
| Score $\mathrm{a}<$ score b |  |  |  | Wilcoxon signed-ranktest |  |  |
| Score $\mathrm{a}>$ score b |  |  |  |  |  |  |
| Score a $=$ score b |  |  |  |  |  |  |

In the case of the control group, 10 out of 25 students scored lower, whereas 9 students scored higher in the post-training reading comprehension test. Six students maintained their previous level of comprehension. Table 3 clearly indicates that for the control group, there is no significant difference between the comprehension scores of pre- and post-training tests.
Table 4 indicates the comprehension scores of the test group in both pre- and post-tests.

Table 4. Test group: reading comprehension score in pre- and post-tests

|  |  | N | Mean rank | Sum of ranks | Z | Asymp. Sig. (2-tailed) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Negative ranks | 9 a | 14.06 | 126.50 |  |  |
| Score $\mathrm{a}-$ score b | Positive ranks | 12 b | 8.71 | 104.50 | -.388 a | .698 |
|  | Ties | 4 c |  |  |  |  |
|  | Total | 25 |  | a. Based on positive ranks |  |  |
| Score $\mathrm{a}<$ score b |  |  |  | Wilcoxon signed-ranktest |  |  |
| Score $\mathrm{a}>$ score b |  |  |  |  |  |  |
| Score $\mathrm{a}=$ score b |  |  |  |  |  |  |

The data obtained shows that 9 out of 25 students scored lower, whereas 12 students increased their score in the post-training test. Only four students maintained their previous score. It is also clear from the table that there is no significant difference between the two tests in relation to reading comprehension.

Thus, the results indicate that both groups maintained the same level of comprehension in both tests, which affirms the researchers' hypotheses 3 and 4, which state that the reading comprehension score of both the control and test groups in post-test is very similar to that in the pre-test. Thus, the expansion of the vision span has no negative effect on the comprehension score of both the control and test groups.

### 4.3 Reading Speed of Control and Test Groups in Pre- and Post-Tests

Concerning the second research question, which focuses on the effect of the expansion of vision span on reading speed, the following data is obtained using SPSS.

Table 5. Control group: reading speed in pre- and post-tests

|  |  | N | Mean rank | Sum of ranks | Z | Asymp. Sig. (2-tailed) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Negative ranks | 15 a | 13.20 | 198.00 |  |  |
| Speed a - speed b | Positive ranks | 10 b | 12.70 | 127.00 | -.955 a | .339 |
|  | Ties | 0 c |  |  |  |  |
|  | Total | 25 |  |  | a. Based on positive ranks |  |
| Speed $\mathrm{a}<$ speed b |  |  |  | Wilcoxon signed-ranktest |  |  |
| Speed $\mathrm{a}>$ speed b |  |  |  |  |  |  |
| Speed a speed b |  |  |  |  |  |  |

In the case of the control group, the reading speed of 15 out of 25 students is lower in the post-test, whereas that of 10 students is higher than the pre-test. No student maintained his previous speed of reading. Table 5 clearly shows that there is no significant difference in the reading speed of the subjects of the control group before and after the training, and hence, hypothesis 5 is also proved accurate.
The table below shows the reading speed of the test group before and after the training in expansion of vision span.

Table 6. Test group: reading speed in pre- and post-tests

|  |  | N | Mean rank | Sum of ranks | Z | Asymp. Sig. (2-tailed) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Negative ranks | 6 a | 5.50 | 33.00 | -3.485 a | .000 |
| Speed a speed b | Positive ranks | 19 b | 15.37 | 292.00 |  |  |
|  | Ties | 0c |  |  |  |  |
|  | Total | 25 |  |  |  |  |
| Speed a <speed b |  |  |  | a. Based on negative ranks |  |  |
| Speed a >speed b |  |  |  | Wilcoxon signed-ranks test |  |  |
| Speed a $=$ speed b |  |  |  |  |  |  |

Table 6 shows that the reading speed of 6 out of 25 students is reduced, whereas the speed of 19 students increased after the training. The data of the table also proves hypothesis 6 because there is a highly significant difference between the pre-test and post-test reading speed results of the test group in favor of the post-test results. In other words, the expansion of the vision span has a positive effect on the reading speed of the test group. This increase in the reading speed can be attributed to the result of training in expanding the span of vision.

### 4.4 Reading Speed of Control and Test Groups in Pre- and Post-Training Tests

The third research question is about the relationship between the pre- and post-test results of the reading speed of the group that received training and the one that did not receive training in the expansion of the vision span. In order to analyze this relationship, the pre-training reading speed results of both the groups are considered first.

Table 7. Reading speed of both groups before training

|  | Groups | N | Mean rank | Sum of ranks | Mann-Whitney U | Z | Asymp. Sig. (2-tailed) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Speed b | Control | 25 | 25.90 | 647.50 | 302.500 | $-.196-$ | .845 |
|  | Test | 25 | 25.10 | 627.50 |  |  |  |
|  | Total | 50 |  |  |  |  |  |

a. Grouping variables: Groups.

Table 7 reveals that there is no significant difference in reading speed before training in either group. This means that both groups had closely comparable reading speed scores before training-a fact that supports the researchers' hypotheses 1 and 2 regarding the matching reading speed of both the control and test groups before the training.

The table below shows the second part of the comparative analysis of the reading speed of both groups by comparing their post-training reading speed scores.

Table 8. Reading speed of both groups after training

|  | Groups | N | Mean rank | Sum of ranks | Mann-Whitney U | Z | Asymp. Sig. (2-tailed) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Speed a | Control | 25 | 17.56 | 439.00 | 114.000 | $-3.885-$ | .000 |
|  | Test | 25 | 33.44 | 836.00 |  |  |  |
|  | Total | 50 |  |  |  |  |  |

a. Grouping variables: Groups.

Table 8 reveals that in the post-training tests, there is a significant difference in the speed of reading in favor of the test group. It means that EFL learners were able to improve their speed of reading after receiving training in the expansion of vision span.

Table 9 and Figure 3 show the reading speed scores of both groups before and after the training in terms of words per minute.

Table 9. Reading speed scores in words per minute

|  | Control group | Test group |
| :--- | :--- | :--- |
| Reading speed (wpm) before training | 76.6 | 73.6 |
| Reading speed (wpm) after training | 74.9 | 102.3 |



Figure 3. Reading speed score (wpm)

Table 9 shows that the reading speed of the control group is 76.6 wpm in the pre-training and 74.9 wpm in the post-training tests. For the test group, on the other hand, the average reading speed of students is 73.6 wpm and 102.3 wpm in the pre-test and post-test, respectively. It means that the control group maintains almost the same reading speed in the post-test, while the test group, which received training in the expansion of vision span, shows a marked increase in this regard.

### 4.5 Discussions

The objective of the present study is to accelerate the speed of reading by expanding the span of vision while maintaining the previous level of comprehension. There had been many early studies aimed at accelerating the speed of reading with no loss of comprehension. Although they used methods and techniques other than expansion the span of vision, they are of some importance to the researchers of the current study. Averill and Mueller (1928), Eurich (1930), Stroud and Henderson (1943), Bloomers and Lindquist (1944) investigated the relationship between reading speed and comprehension without focusing on the use of techniques used to accelerate the process of reading.
The methodology used in this study involved a sample of 50 students, which is divided into two groups (a control group and a test group). Maxwell and Mueller (1967) used a similar methodology except for the fact that they divided the sample of 120 college students into three groups of 40 students instead of two groups of 25 students each, as is done in this study. Group 1, the experimental group, received instruction in techniques to increase reading speed. Group 2 , the placebo group, was given materials designed to motivate them to read faster by stressing the importance of reading speed and no instructional techniques were given to them. Group 3, a control group, received none of the trainings. The experimental group showed significantly greater reading speed gains ( 33 percent) over the placebo group ( 11 percent) and the control group ( 9 percent). No losses in comprehension were reported for either group. Furthermore, they also used techniques to read faster, but not the ones used in the current study.
In the current study, the test group increased their average reading speed from 73.6 wpm to 102.3 wpm , which means a total increase of 39 percent with no loss in comprehension. This finding confirms the study of Lewis (1949), who investigated the effect of improvement upon reading speed through eye movement-a technique that is closely related to the technique of expanding the span of vision. He also came to a similar conclusion that the eye movement group made an average improvement of 24.4 percent in reading speed with no loss of comprehension.
The results of the study conducted by Simpson (1950), where the increase in reading speed is 50 percent, also support the results of the present study. The only difference is that instead of using drills to expand the span of vision, the learners used a tachistoscope and a reading accelerator as rate training devices.

## 5. Conclusions and Recommendations

This short experimental study indicates that with practice and training in expanding the span of vision, there is a scope for a significant improvement in the reading speed of EFL learners. The results of this study lead to a number of conclusions. First, the average reading speed of EFL undergraduate students of King Khalid University is 75 wpm with approximately $70 \%$ comprehension, whereas Jordan (1997, p. 17) considers a reading speed of less than 200 wpm as slow, about 250 wpm as average and above 300 wpm as fast. Second, there is a substantial increase of 39 percent in the average reading speed of the subjects of this study as a result of the training in expansion of the vision span using reading speed drills developed by Cutler (1993). Third, the expansion of vision span has no negative effect on the comprehension score. Finally, the outcomes and results of this study are applicable not only to the context of undergraduate students of King Khalid University, Saudi Arabia, but also to other contexts and levels where English is used as a foreign language.
The conclusion of this study leads to the following recommendations for EFL learners, teachers, policy-makers and researchers. First, the drills adopted for training the group of students to increase their visual expansion and thereby enhance their reading speed can be very handy for college-going students. Second, instructors should motivate language learners to use drills for increasing their speed of reading and consequently save time and achieve greater success. Third, policy-makers may include these vision expansion drills for increasing the speed of reading in the teacher training courses. Finally, this study was done in the Saudi EFL context with a small group of 50 students who possessed above intermediate level of English proficiency; researchers, however, can use the vision expansion techniques on a larger group for a longer duration of training and with different levels of learners.

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Appendix

| DRILL A |  |  |  |  | DRILL B |
| :---: | :---: | :---: | :---: | :---: | :---: |
| F | M | E |  |  |  |
| W | K | G | L | CSB | K |
| Q | J | N | M | YPD | V |
| S | V | B | E | PGL | M |
| P | G | J | X | GMI | P |
| A | E | N | C | RKG | L |
| R | G | Y | W | CYH | P |
| C | W | J | E | DNL | Q |
| L | Q | C | A | DJM | L |
| V | R | Y | B | SKH | L |
| B | M | V | V | TKF | M |
| S | G | J | C | MRI | D |
| B | O | K | B | MRC | T |
| Q | T | L | O | SLO | V |
| X | U | I | T | AMG | Y |


| DRILL C |  |  |  |  | DRILL D |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T | J | M | G | E | V | U | SBN | E | L |
| P | S | B | N | R | S | I | CKR | S | L |
| C | E | L | Y | K | X | R | DLT | C | Y |
| X | D | W | A | Z | P | G | RKY | V | J |
| L | Y | V | D | C | B | F | LDI | P | H |
| K | $P$ | W | A | X | O | Y | SJR | J | T |
| X | G | W | K | M | I | G | LRI | D | P |
| Z | Y | I | P | M | F | G | SYT | J | W |
| W | D | X | B | M | R | T | RTL | C | S |
| Z | T | I | L | B | Z | F | GLT | B | R |
| A | U | T | K | Y | Q | D | GKY | L | G |
| V | M | S | R | K | Z | P | TIL | V | M |
| K | T | D | X | C | L | M | VYT | K | E |
| Q | G | J | I | L | W | A | FKY | N | C |
| A | J | E | I | R | A | S | MSL | W | Z |


| DRILL E |  |  |  |  |  |  | DRILL F |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H | F | D | BAC | E | G | I |  |  |  |
| C | S | P | URL | N | B | N | G | A | $\underset{\mathrm{T}}{\mathrm{M}}$ |
| M | D | R | TYH | B | M | S |  |  |  |
| L | S | K | DTB | X | J | W | E | I | H |
| L | A | D | RYM | C | K | E | $\stackrel{\text { c }}{ }$ | O | M |
| P | A | F | GTW | Q | M | D | C | O |  |
| T | K | F | EXB | U | M | W | A | I |  |
| T | N | D | RWS | C | I | A | Z | X | B |
| R | J | E | PQT | X | P | M | Z | $X$ | B |
| L | E | G | JWQ | U | I | N |  |  |  |
| S | J | D | VBN | Z | Q | T | W | T | $\bigcirc$ |
| M | E | 0 | IUK | L | A | P | W |  |  |
| L | B | W | SAI | F | B | C |  |  |  |
| F | T | Q | HLS | C | V | M | Q | B | $\underset{y}{N}$ |
| C | M | E | SBC | D | H | E | U | I | Y |


| DRILL G |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | R | NQT | B | D | DRILL H |  |  |  |  |
| C | K |  | N$\times$ | $\begin{aligned} & \mathrm{R} \\ & \mathrm{~A} \end{aligned}$ | RS | MKJ | Z$T$M | PBW | NNN |
|  |  |  |  |  |  |  |  |  |  |
| K | D | LPY | K | S | A |  |  |  |  |
| M | F | KTP | B | X |  |  |  |  |  |
| R | O | LDH | M | R | J | F | K | B | M |
| K | Q | DMT | A | J | W | O | $N$ | V | J |
| M | F | LDF | M | T | Q | I | B | A | L |
| Y | M | FLP | B | C |  |  |  |  |  |
|  | F |  |  |  | F | B | E | I | C |
| V | K | ${ }_{\text {XPR }}$ | $\bigcirc$ | P | P | F | M | V | L |
| D | P | MCO | F | K | J | F | B | K | D |


|  | DRILL I |  |  |  |  |  |  |  |  | DRILL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
| T | E | ESN | N | O | C | S | P | URL | N | B | N |
| D | L | SCB | N | E | M | D | R | TYH | B | M | S |
| W | P | FHB | S | O | L | S | K | DTB | X | J | W |
| A | L | FCB | G | E |  |  |  |  |  |  |  |
| X | B | WYO | P | F | L | A | D | RYM | C | K | E |
|  |  |  |  |  | P | A | F | GTW | Q | M | D |
| Q | O | PAB | C | M | T | K | F | EXB | U | M | W |
| E | K | GZS | F | A |  |  |  |  |  |  |  |
| L | S | HVN | T | I | T | N | D | RWS | C | I | A |
| D | I | EGB | P | D | R | J | E | PQT | X | P | M |
| W | L | QCX | O | K | L | E | G | JWQ | U | I | N |


| DRILL K |  |  |  |  | DRILL L |
| :---: | :---: | :---: | :---: | :---: | :---: |
| D | B | A | C | E | The Basic Idea |
| K | T | L | Y | C |  |
| C | V | I | J | F | The basic idea of social secur- |
| V | F | K | R | K | ity is a simple one: During |
| B | R | K | T | V | working years, employees, their |
| X | B | J | T | T | employers, and self-employed |
| G | U | K | V | F | people pay social security contri- |
| H | R | J | F | H | butions, which go into special |
| H | Y | G | T | G | funds; and when earnings stop or |
| G | Y | T | R | I | are reduced because the worker |
| J | S | C | B | W | retires, dies, or becomes disabled |
| R | B | C | N | X | retires, dies, or becomes disabled, |
| G | B | M | N | S | monthly cash benefits are paid |
| R | B | C | N | X | from the funds to replace part of |
| J | S | C | B | W | the earnings the family has lost. |

## DRILL M

The doctor was puzzled. He again looked at the moan-
ing patient, and once again shook his knowledgeable old
head. "Looks bad," he said. "Temperature: 103; the pulse:

10; dark rings under the red eyes; irregular breathing . . ."


|  | DRILL N |
| :---: | :---: |
| The | alert |
| student | observed |
| as | he |
| read | in |
| Triple | Your |
| Reading | Speed |
| that the | columns of |
| words increased | somewhat in |
| width as | he went |
| along. They | increased, in |
| fact, so much | that by Drill $K$ |
| they were the | same width as |
| the line of print | on a novel page. |
| It is a true fact | that some readers can |
| read straight down the middleof an entire novel page <br> and their peripheral vision <br> will take in the entire line |  |
| without their eyes scanning either left or right. This is indeed |  |

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