

APPENDIX 3

EFFECTIVE READING STRATEGIES

This appendix covers:

- Barriers to effective reading.
- Reading for study or research.
- Memory aids.

Why would we want to improve our reading skills? If we're reading for pleasure, we may enjoy reading slowly and savoring every word. However, if we need to read or review lengthy materials in the course of our jobs, our time is valuable. Improving reading speed and comprehension will help pinpoint the information we need in the limited time we have available. On a day-to-day basis, we must stay current with world events and read or review Air Force Instructions, operating instructions, plans, technical orders, and promotion study guides. Since we don't have time to spend our days reading, we have to learn to use our reading time more effectively.

This appendix provides some basic strategies for improving reading skills. First, we'll discuss some barriers to effective reading and techniques to overcome these barriers. Next, we outline a study and research a reading method to help you get the most from your time. Finally, we offer some memory improvement tips.

"Reading is to the mind what exercise is to the body."

– Joseph Addison

WHAT ARE SOME BARRIERS TO EFFECTIVE READING?

Some of us continue to use the habits we adopted when we first learned how to read. Most of us don't even realize we're still practicing them. These habits are keeping us from reading efficiently and effectively.

① **Reading at a fixed speed.** One habit we tend to overlook is reading different types of material at the same speed. Not all materials are equally difficult to read. In the same way, not all sections of a particular written work are of equal complexity.

To read efficiently, adjust your speed according to the difficulty of the text you're reading and your purpose for reading it. If you're reading for main ideas only, skim the material quickly. Shift speeds as needed for additional information. Slow down on the complex parts, and speed up on the easy ones. If you are somewhat familiar with the material, read faster. Read faster over broad overviews and unneeded details. Generally, you'll need to slow down while reading detailed technical material and material with unfamiliar concepts. If you are reading for study purposes, your overall rate will be slower.

② **Vocalizing, or subvocalizing, words.** Another common habit we typically don't think about is vocalization, or subvocalization. This occurs when we say the words we're reading aloud, or to ourselves. If we pronounce each word, we can't read any faster than we can speak.

To overcome this habit, learn to read faster than you can speak. One way to do this is to shift your focus from a small area of print to a larger one. We'll cover a couple of techniques under the next section.

Another way to help cut your dependence on saying the words is to think about the key words, ideas or images—picture what is happening. You have to go over the print fast enough to give your brain all the information quickly. Keep your mind clear so the picture or thought can enter it. Then, accept it without question. Try not to let other thoughts intrude.

③ **Reading words one at a time.** Reading individual words is very inefficient. To read faster, your eyes must move faster over the printed material. We can't continue reading one word at a time. However, just willing your eyes to move faster isn't enough. Many of us have been practicing this habit of slow eye movements for so long that it's too hard to give it up that easily.

One way to break this habit is to use your hand, or another object, as a pacing aid. Since your eyes tend to follow moving objects, your eye will follow your hand as it moves across the page. One method is to make one continuous movement with your hand across each line of text. For example:

The first operations conducted by airmen were ~~designed to gain information superiority~~. Subsequently, air-to-air combat ~~evolved as a means to deny information superiority~~ to an adversary. Information operations from air and space and, today, in cyberspace, remain key elements of what our Service brings to the Nation, the joint force commander, and component and coalition forces.

Use your hand
as a pacing aid

AFDD 1, *Air Force Basic Doctrine*, 1 Sep 97

As your hand moves across the text, your eyes will follow it. You can change the speed as needed for the difficulty of the material you're reading.

Another method is to let your peripheral vision do some of the work. To use this technique, break up the page into groups of words, or columns. Instead of focusing your eyes on every word, begin by focusing on every second or third word. Practice moving your eyes smoothly from one group to the next, and let your peripheral vision pick up the words on each side of the break. For example, you could break up this sentence into groups of words like this:

For example, you / could break up / this sentence into / groups of words / like this.

To break the text up into columns, use the following pattern as an example for your eyes to follow. As you read each line of text, focus your eyes on the first dotted line. (This line represents the center of the first column of text.) Then jump to the second line and finally the third line. Let your peripheral vision pick up the words on either side of the line as you go along.

Thunderstorms contain the most severe weather hazards to flight. Many are accompanied by strong winds, severe icing and turbulence, frequent lightning, heavy rain, and hazardous windshear. If all of these are not enough, - consider the possibility of large hail, microbursts and even tornadoes. Thunderstorms are quite powerful.

Use your
peripheral vision

AFH 11-203, Vol 1, *Weather for Aircrews*, 1 Mar 97

Practice is the key! You can increase your reading speed by spending a few minutes a day reading at a faster rate than normal.

④ **Rereading passages.** Another barrier to effective reading is rereading passages. This habit can slow your reading speed to a snail's pace. We can all probably relate to this one. Once we've read a sentence or passage, we realize we have no idea what we've just read. Why? Our thoughts have a tendency to wander.

To prevent reading passages over again, you need to increase your concentration. Try to isolate yourself from any outside distractions. Find a place away from phones, TVs and engaging conversations.

A simple way to keep from rereading is to cover up the material you've already read with an index card. You can also use one of the pacing tools discussed under the last section.

⑤ **Stumbling over unknown words or large numbers.** Don't let unfamiliar words or large numbers slow you down.

Even readers who have a large vocabulary will come across unfamiliar words. You can usually gain the meaning of a word by its use in the text. Keep in mind that your ability to read faster depends upon your ability to recognize words quickly. The more you read, the more your vocabulary will grow. Additionally, improving your vocabulary will improve your comprehension.

As for numbers, unless you need to remember specific data, just substitute "few" or "many" for the actual digits.

WHAT WILL HAPPEN TO MY COMPREHENSION?

When you first start practicing reading faster, you may understand very little of what you read. Be patient. Your eyes will get used to seeing the print at a rapid pace, and you'll understand more. Begin by reading faster for only 5-10 minutes at one time, and gradually increase your time. In the end, your comprehension and retention should be at least as good as it is now.

Research shows a proportional relationship between reading speed and comprehension. In most cases, an increase in comprehension follows an increase in reading speed. Comprehension decreases when speed decreases. Reading slowly, word-by-word, seems to inhibit understanding. (Virginia Tech and the University of Maryland.) Eliminating the barriers to effective reading can help.

Practice is the key!

HOW SHOULD I APPROACH READING FOR STUDY AND RESEARCH PURPOSES?

SQR3 is one research reading method you can use. It stands for survey, question, read, recall, and review. F.P. Robinson coined the SQR3 acronym in a book entitled *Effective Study* (1946). University researchers continue to recommend this method to help you get the most from your reading time. It will help you separate the important information from the chaff.

① **Survey.** The first step is to survey the material to get the big picture. This quick preview allows you to focus your attention on the main ideas and identify the sections you want to read in detail. The purpose is to determine which portions of the text are most applicable to your task. Read the table of contents, any introductions, section headings, subheading, summaries and the bibliography. Skim the text in-between. Be sure to look at any figures, diagrams, charts, and highlighted areas.

Skim for gist

② **Question.** Once you've gained a feel for the substance of the material, compose questions about the subject you want answered. First, ask yourself what you already know about the topic. Next, compose your questions. You can also turn section headings and subheadings into questions. For example:

- “How do I create or change a program element?”
- “What is the technical order change process?”

For some materials, you’ll want to use your critical thinking skills to interrogate the writer. The more you know about the author and his/her organization, the better you’ll be able to evaluate what you read. Try to answer questions like these:

- What is the author’s experience and credentials?
- What is the author’s target audience?
- What is the author’s purpose?
- What are the author’s assumptions?
- What are the author’s arguments?
- What evidence does the author use to support his/her arguments?
- What are the author’s conclusions?
- What factors shaped the author’s perspective?

③ **Read.** Now go back and read those sections you identified during your survey. Search for answers to your questions. Look for the ideas behind the words.

Read for details

④ **Recall.** To help you retain the material, make a point to summarize the information you’ve read at appropriate intervals (end of paragraphs, sections, and chapters.) Your goal is not to remember everything you’ve read, just the important points. Recite these points silently or aloud. This will help improve your concentration. You can also jot down any important or useful points. Finally, determine what information you still need to obtain.

⑤ **Review.** This last step involves reviewing the information you’ve read. Skim a section or chapter immediately after you finish reading it. You can do this by skimming back over the material and by looking at any notes you made. Go back over all the questions you posed and see if you can answer them.

Review for understanding

HOW CAN I REMEMBER MORE OF WHAT I READ?

If you need to improve your ability to remember information you've read, the following tips may help.

- ① **Improve your concentration.** Improving your reading environment can help. Minimize distractions. Choose a place away from visual and auditory distractions. Ensure your chair, desk, and lighting are favorable for reading. Establish a realistic goal for how much you intend to read in one sitting. Stop occasionally for short breaks.
- ② **Organize the information.** Arrange data or ideas in small groups that make sense to you. These groups will be easier to remember by association with the group.
- ③ **Make the information relevant.** Connect the new information with information you already know. Try to associate what you are reading with your job or your interests. Recalling the information you already know about a subject will make it easier to recall the new stuff.
- ④ **Learn Actively.** Researchers report “people remember 90 percent of what they do, 75 percent of what they see, and 20 percent of what they hear.” (Dave Ellis, *Becoming A Master Student*, 8th ed., 1997.) Use all of your senses. Don't just speak aloud when recalling information you've read, get your entire body into the act. Get up and move around, as if you are practicing for a speech. Use visualization and picture the information you're reading. Write down the main points. These methods will help you to retain the material. Don't forget to relax. When we're relaxed, we think more clearly.
- ⑤ **Use your long-term memory.** Your short-term memory space is limited, so take advantage of your unlimited long-term memory. To commit information to your long-term memory, review the material several times. Change the order of the information you recite during your reviews. This takes advantage of your ability to remember best what you read last.
- ⑥ **Maintain a positive attitude.** If you think the information is going to help you in your job or personal life, it will be easier to remember. However, if you believe the information you're reading is too difficult to retain, it will be. Think positive!
- ⑦ **Use Mnemonics.** You probably remember this memory aid from your childhood. Remember “My Very Energetic Mother Just Served Us Nine Pizzas?” This catch phrase helped us remember the order of the planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto. You probably also know this catch phrase to help remember General Officer rank order: “Be My Little General” (Brigadier General, Major General, Lieutenant General, and General.) You could use a catchword to remember the Principles of War. “MOSSMOUSE” = Maneuver, Objective, Security, Simplicity, Mass, Offensive, Unity of command, Surprise and Economy of force.

“I divide all readers into two classes: Those who read to remember and those who read to forget.”

– William Phelps

SUMMARY

Improving effective reading skills means learning to break old reading habits that slow us down. The following tips will help. Be patient: Practice is the key!

- Adjust your reading speed to match the difficulty of the material.
- Learn to read faster than you can speak.
- Use pacing aids to help you read faster.
- Put your peripheral vision to work.
- Increase your concentration by removing distractions.
- Infer the meaning of unfamiliar words by their use in the text.
- Improve your vocabulary.
- Substitute “few” or “many” for numbers you don’t need to remember.

Improving our study and research skills will help us make the most of our time. The following steps will help.

- Survey the material.
- Form questions you want to answer.
- Read relevant sections to obtain details and answer your questions.
- Recall information as you finish reading sections.
- Review the material.

Improving our ability to remember information will help us in all areas. The following tips may help.

- Plan your environment to optimize your ability to concentrate.
- Organize the information in small groups.
- Make the information relevant to you.
- Learn actively; use all of your senses.
- Review the information several times, changing your review patterns.
- Think positive.
- Use mnemonic catchwords or catch phrases.

“An ounce of practice is worth more than tons of preaching.”
– Mohandas Gandhi

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Some Actual Signs

In the front yard of a funeral home:
DRIVE CAREFULLY, WE'LL WAIT

On an electrician's truck:
LET US REMOVE YOUR SHORTS

Outside a radiator repair shop:
BEST PLACE IN TOWN TO TAKE A LEAK

In a nonsmoking area:
IF WE SEE YOU SMOKING, WE WILL ASSUME YOU ARE ON FIRE AND TAKE
APPROPRIATE ACTION

On a maternity room door:
PUSH, PUSH, PUSH

On a front door:
EVERYONE ON THE PREMISES IS A VEGETARIAN EXCEPT THE DOG

At an optometrist's office:
IF YOU DON'T SEE WHAT YOU'RE LOOKING FOR, YOU'VE COME TO THE RIGHT
PLACE

On a taxidermist's window:
WE REALLY KNOW OUR STUFF

On a butcher's window:
LET ME MEAT YOUR NEEDS

On a fence:
SALESMEN WELCOME. DOG FOOD IS EXPENSIVE

At a car dealership:
THE BEST WAY TO GET BACK ON YOUR FEET—MISS A CAR PAYMENT

Outside a muffler shop:
NO APPOINTMENT NECESSARY. WE'LL HEAR YOU COMING

In a dry cleaner's emporium:
DROP YOUR PANTS HERE

On a desk in a reception room:
WE SHOOT EVERY 3RD SALESMAN, AND THE 2ND ONE JUST LEFT

In a veterinarian's waiting room:
BE BACK IN 5 MINUTES. SIT! STAY!

At the electric company:
WE WOULD BE DELIGHTED IF YOU SEND IN YOUR BILL. HOWEVER, IF YOU DON'T,
YOU WILL BE