



## Basic Research Skills

### Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Identify the benefits to proper research and documentation
- ✓ Read for maximum information retention and recall
- ✓ Take effective notes

## Unit 1

### Basic Research Skills

#### Why Are Research Skills Important?

In this day and age, it may seem silly to talk about research skills. You can plug any topic into an Internet search engine and get lots of results. However, you need to remember that not everything that you read is true – particularly on the Internet. Good research skills can help you:

- Remember what you read
- Determine how valid information is
- Weed out the truth
- Write better reports and make better presentations
- Become more knowledgeable about the topics that you research
- Be credible to your peers and co-workers

#### When might you need research skills?

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Developing good research skills requires that you have a good grasp on:

- Reading efficiently and effectively
- Critical thinking
- Note-taking techniques
- Time management and organizational skills
- Self-confidence and self-motivation
- Patience!

**Food for Thought:** You will also get a lot more out of your research skills if you work on your writing and presentation skills.

## Basic Skills

### Reading and Note-Taking Techniques

Reading a textbook, article, or any research source is different from leisure reading. You need to quickly identify what you need to read. Then, you need to be able to read and process the information effectively and efficiently.

There are many models out there for effective reading, but they are all quite similar. Here is our suggested model, which you can remember with the acronym **GO-PARSE**.

### Get Organized

We recommend that you gather the tools that you need before you begin reading. We like pens that have a highlighter on one end, a pen on the other, and small sticky flags in the body. Or, you can gather these tools separately. (Regular-sized sticky notes can also be useful.) Make sure that you have a notepad or your laptop (with plenty of battery charge) handy, too.

If you can't markup the material that you're reading, photocopy it if possible, or scan it into your computer. Just make sure that you follow any copyright or reprinting rules.

### Preview

Take about ten minutes to preview the book. Flip through it and see how the book is organized. Pay attention to titles, sub-titles, and graphics. Introductions, summaries, and test activities can also be good signposts.

If the book covers more information than you need, identify the sections or sub-sections that you will want to read. Don't go any lower than that; otherwise you risk reading out of context.

### Ask

Make a list of questions that you are looking to answer. If you are stuck for ideas, turn each section heading (for the sections that you will read) into a sub-heading. Remember the **five W's** and the **H**:

- Who
- What
- When
- Where
- Why
- How

**Read**

Now it's time to read the text and mark it up. Break the text into sections if it's not broken up for you; five to eight pages is usually a good range. Read each section, one at a time, while keeping your focus questions in mind.

Here are some tips for effective reading:

- Read difficult passages several times.
- Do not try to speed read or skip over words.
- If you are having trouble understanding a passage, read it out loud or move your lips.
- If you get stuck on a section, mark it and come back to it later.

Once you have read a section, go back through it and underline the main points with a highlighter. Just highlight the main points or keywords – there isn't any point in marking up entire pages of text.

In addition to highlighting, you can:

- Add numbers
- Draw shapes and arrows
- Draw vertical lines in the margin to highlight large areas of importance (like summaries)
- Use symbols to mark key points (Examples: \* for a definition, \$ for statistics, ? for things you want to check up on later or that you don't agree with)
- Use acronyms to mark key points ("def" for a definition, for example)
- Use different colored highlighters or pens to mark different categories of items
- Write notes in the margins or on sticky notes attached to the page

Just make sure that you are consistent and don't overdo it. Remember that markup is intended to help you find important points later, so don't markup the whole page – just the key points.

**Summarize**

Now it's time for a third pass on the document and to take notes on what you have read, either by hand or with a computer.

At the beginning of your notes, include full bibliographical information, including:

- Document title
- Full name of all authors
- Publisher and publication date
- Editor, if applicable
- Copyright date(s)
- Volume(s)
- Edition number
- Translator
- ISBN number

- Any other pertinent information

Note what page each piece of information came from. (The margin is a good spot for this.) Separate your notes into the same sections as the document, and use the same underlining/markup system.

Try to avoid copying text word for word. If you do this, clearly mark it as a quote in your notes and indicate what page it came from. Do, however, include your thoughts, analysis, and questions. Again, be sure to mark them as such – perhaps using a different colored pen or highlighter.

Here are some common shorthand symbols.

Shorthand Symbol	Meaning
<	Decrease
>	Increase
=	Is the same as, means
≠	Is not the same as, does not mean
~	Is similar to
→	Causes, leads to
∴	Therefore
✓	Correct
✗	Incorrect
i.e.	That is
e.g.	Example
vs.	Versus

**Some other tips:**

- Remove vowels to shorten words. For example, “shorthand” becomes “shrthnd.”
- Write compound words as their initials with slashes. “Because” becomes “b/c.” Without becomes “w/o.” Individual becomes “i/d” or “i/v.”
- Over time, you will create your own shorthand. Be consistent and use what works for you.

If you are taking notes by hand, make sure that they are legible, leave lots of white space, and number your pages. If this will be an extensive project, you may want to put your notes into a three-ring binder, with tabs for each book that you have notes on.

If you are taking notes electronically, use different files for different books. There are also programs designed for taking notes, like Microsoft OneNote, Annotate, and Jamal, which have built-in ways to take and organize notes.

**Evaluate**

For the final step, read through your notes with the textbook beside you. Add any extra notes or markup as necessary. As the final page to your notes, write out the questions that you developed in the Ask stage and write the answers that you received.

**PARSE in Action**

**Preview**

Take about five minutes to preview the handout. How is it organized? What sections or sub-sections will you want to read?

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**Ask**

Make a list of questions that you are looking to answer.

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**Read**

Read the identified sections. Then, do a second pass to highlight and markup the text.

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**Summarize**

Next, start your notes with bibliographical information, followed by handout information (organized by section, sub-section, and page.) Use the same underlining/markup system that you used on the document.

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### Evaluate

Do a final read-through, adding any extra notes or markup as necessary. As the final page to your notes, write out the questions that you developed in the Ask stage and write the answers that you received.

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### Improving Your Recall

Do you remember

- What you ate for breakfast this morning?
- What you had for supper three days ago?
- Your last conversation with your best friend?
- What the first topic of today's workshop was?

Many people today struggle with their short-term memory. However, you can cultivate your retention skills, just like reading and note-taking skills. Having a better memory will help you read material, organize it, and remember it when you're writing later.

Let's look at some key tips.

### Attitude is Everything

Start with a mental shift. Instead of saying, "I have a terrible memory," say to yourself, "I'm going to really work on focusing on what's happening and remembering things."

We also recommend slowing your pace down. Many people multi-task like mad, spreading themselves so thin that they can't give proper attention to anything. Focus on one thing at a time – that means no e-mailing during meetings, turning the TV off during conversations, and stopping what you're doing when the phone rings.

Taking time when doing a task, so that you aren't rushed, can help too. If you're having trouble focusing on the task at hand, write your worries down. Deep breathing can help, too, both physically and mentally.

**Use All Your Senses**

Most of us tend to use one of our senses the most – you might be a visual person, for example, or an auditory person. Think about this and try to decide which sense you use the most often. Then, tailor your research tools to the sense that you prefer.

For example, if you're a visual person, you might color-code your highlighting, or use more diagrams and graphics. If you're an auditory person, listening to audiobooks might be a better way of learning.

Note that no matter what sense you use, teachers generally agree that reading out loud greatly improves your retention. Try reading to yourself or having a friend quiz you on material.

**Sing It, Say It, Rhyme It**

I'm sure that you can remember the alphabet song and other rhymes from early childhood. Use the same technique to help you remember what you read. Make it into rhymes, create acronyms, and sing songs. Not only will it improve your retention, it can make a research session a lot more fun. (Just make sure to keep quiet in the library!)

**Organize and Pattern**

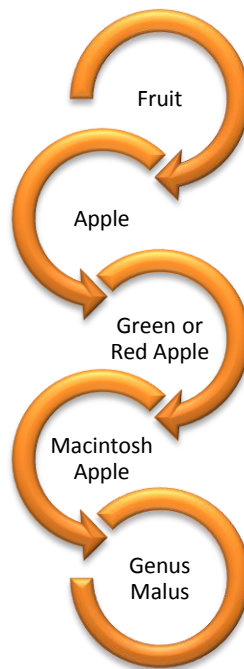
Once you have taken your notes, take a fresh piece of paper to organize the information that you have read into a graphic or pattern. Or, number your notes. Placing things into a sequence that makes sense to you (as long as it doesn't make the information wrong) will make it a lot easier for you to remember, digest, and analyze.

**Remember the 7±2 Rule**

The 7±2 rule comes from a study done by psychologist George Miller. Miller found that we can hold five to nine chunks of information (in other words, **seven plus or minus two**) in our short term memory.

What constitutes a chunk or piece of information? Well, there is no real answer. It depends on the information and how familiar you are with the topic. What is important to remember is that the more you can relate pieces of information to each other, the more you will remember.

Imagine one chunk as a ladder, with very general (or abstract) information at the top and very specific information at the bottom:



This is also known as the **ladder of abstraction**. Depending on the situation, you might want to **chunk down** information (get more specific) or **chunk up** information (create a broader overview).

### Further Reading:

- ✓ *Badke, William. Research Strategies: Finding Your Way through the Information Fog (Fourth Edition). iUniverse.com, 2011.*
- ✓ *Birkets, Sven, and Donald Hall. Writing Well (Longman Classics Edition). Longman Classics, 2006.*