

Study Secrets

(How the brain works)

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If you ... store up my commands... you will find the knowledge of God. Prov. 2:1-5

Proverbs 2:1-5 NIVO

My son, if you accept my words and store up my commands within you,

² turning your ear to wisdom and applying your heart to understanding--

³ indeed, if you call out for insight and cry aloud for understanding,

⁴ and if you look for it as for silver and search for it as for hidden treasure,

⁵ then you will understand the fear of the LORD and find the knowledge of God.

I took a seminar when I was in college on Learning & Memory which has been of significant help to me through the years. The seminar was about how the brain inputs and retrieves information. That seminar has helped me through all of my years.

I often hear from people they struggle to recall information, or they have difficulty memorizing. The Secrets to Study, can help with people with memorization. It can help people to succeed, who otherwise think they cannot.

The Secrets of Study are based on how the brain functions. God made our brain. He knows how it functions best. He established patterns in the Bible because of how the brain works.

When I took the seminar, it covered the ideas presented below. I used these ideas to earn the Bachelor of Science, the Master of Divinity and the Doctor of Philosophy degrees. Here are the study secrets that can help you to study better so you can remember more on exams.

A few notes about study that will help

1. **Giftedness** - Not all brains are created equal in abilities.

a. A photographic brain will not need these tactics so much.

B. But most people do not have gifted memory. The rest of us have to work at it.

2. **Excuses** - Making excuses or saying you can't memorize is a sure way to keep from learning how to develop your memory. Recognizing you have a struggle is good. All growth requires some struggle.

3. **Concentration** - The methods I will share with you will require effort and concentration. I am sharing this with those who want to make improvements, so they can use their minds for God. You can start with **removing distractions**. For example: if you are trying to memorize while watching your sports team or while listening to music that has nothing to do with your subject, you are not going to benefit from this lesson. Get away so you can go deep in study.

When I was a student at Oklahoma State, I would walk onto the campus and make my way to the library. We had a large library. I would go down to a lower level where there wasn't anyone else, sit at a table by myself so I could concentrate. My goal was to study, not socialize. Get yourself to a place where you can study. You will have much greater results and they will come much faster.

The Keys to how the brain works for memorization

Most of the time, when people say they cannot memorize, they are actually saying they cannot recall information. Recall is not the major issue. The real issue is input, not recall. We can recall better if the information is encoded better by better means of input. To memorize, we must learn how the brain works best with input. We are going to focus on how to input information so the brain can more readily recall it.

1. The brain recalls information best when it has more **pathways** for input.
 - a. Reading or hearing alone recalls the least. It has only one pathway of input. Many people think they have studied because they read the material. Their brain has received minimal input of the information.
 - b. Hearing and writing increases recall. It has two pathways of input.
 - c. **Hearing, writing, and speaking** increases recall much more. This allows information to move through the eyes, hands, and ears, providing three pathways for input.

The object is to have many different ways of ways of getting the information into your brain.

2. The brain recalls information best when it has more **repetition** in the input.
 - a. Reading material over and over helps.
 - b. Reading and writing material over and over helps **more**.
 - c. Reading, writing and saying the material out loud **over and over** increases recall greatly. Again, more pathways plus rehearsing the material.
3. The brain recalls more information when **higher processes** are used in the input.
 - a. Mental pathways are developed around association of ideas in the use of words and sentences (Dr. Benjamin Carson, Neurosurgeon).
 - b. When sentences are reduced to words which represent the idea of the sentence, the mental pathways are increased. This is a higher process of thinking as part of the review of the material. This process is done by re-writing the material onto index cards several times. Each time the material is re-written, try to reduce the material by representing larger content by lesser content For example, use a **sentence** to represent a **paragraph**. Reduce it further until a **word** to represents a **sentence**; then even

further until a **list** of words represents a **unit** of material.

- c. Forming **images** can also help strengthen the encoding of information.

If you can associate words or lists with an image, the image creates deeper roots in the brain. Images may help with developing long term memory versus short term memory. Stories create images in our minds when we hear them. Sermons which have stories or parables, for example, seem to last longer than lists of ideas by themselves. Note how Jesus often told parables when he taught his disciples.

- 4. The brain recalls information better when **lists** are made in **odd numbers**, like 3, 5, and 7. When you make lists, keep them in odd numbers, and no greater than 7.

- a. The brain needs a place to **hang** or **park** information.

Think of these parking places like telephone poles. You will hang a lot of information between the poles, but we need a place to hold up that information. The brain needs to focus on some key places which can help it remember the rest of the information.

A list of 2 has two posts. A first and a last place. Item 1 and item 2. So far good.

In a list of 3, 2 is a parking place between 1 and 3. We are still good. 3 is a parking place between 1 and 5.

- b. Even numbered lists are more difficult for memorization because they lack a place to park or focus the brain's attention. It is more difficult therefore, to recall a list of 4 than a list of 5. Often, in the Scripture we see lists of 3's, 5's, and 7's because it was written for an oral culture. *The Hebrew Bible was written to be memorized.*

- c. The exception is lists of 2's as I've already indicated. Or, you can have a list that have a **set - plus one**. In a list of 2, you have two placement points, a start and a finish. A single point can be strong as a final stand-alone point. Some say the creation story has 2 lists of 3 days, plus a single day equaling 7. The single day, the day of rest, is the strongest point. For the mind, the creation story is a set of 3 lists. If you have a list of 4 things, divide it into two sets of 2. 6 into two sets of 3. 8 into a list of 5 and 3.

If you are memorizing on a list of 8, broken into a lists of 5 and 3, concentrate on the 5 list first, then the 3 list. The brain will be more tired by the time you get to the second list, so work on the longer list first.

- 5. **Activity** while memorizing can stimulate the brain.

Walking around while rehearsing your list can be very helpful for study. The old adage of sitting still and concentrating may not always be the best. You need concentration in the sense of not having a competing activity that is apart from study.

However, moving or walking around can stimulate your brain and increase mental pathways.

6. The brain needs **rest** too.
 - a. Adequate rest helps concentration.
 - b. While working on your study notes. Take a break. Get away from it for a short time. The break gives your brain a time to un-stress.
 - c. The brain is an organism, not a computer. You must treat it right if you want it to work for you.
7. **Older** brains will require more effort at inputting information than younger brains.
 - a. The problem with older brains is with **input** rather than recall. The older brain does not encode well.
 - b. Older brains can often recall older information, because it was encoded in the younger brain stage.
 - c. Older brains can still encode information, but it takes more effort.

Summary

1. The more you work at inputting information into your brain, the better you can recall that information.
2. Writing and speaking the information over and over will greatly help encode the material in your brain for later recall. In preparing to take an exam, the more often you write the material onto note cards, and speak out loud the material, the deeper the information gets into your brain.

3. Try rehearsing your information while moving or walking. Active movement will increase blood flow.

How to Memorize Scripture

Scripture was written to be memorized. In the ancient world, most people memorized it because they could not carry scrolls around. Young people were trained to memorize Scripture by repeating the lines over and over.

1. Use Scripture verse numbers as a **guide**. However, Scripture was not written with numbered verses, so don't let verse numbering be the ultimate guide to your memorizing pattern.
2. **Use** the information on **how the brain works** when it comes to Scripture memorization.
3. Memorize verses by working only on **small** sections at a time. In many instances, a third of a verse is all you want to work on.
4. **Repeat** the small section over and over until it becomes second nature to you. When you can easily repeat that part of the verse, add a new part. Keep doing this until you have completed the verse and you can easily repeat it over and over. Don't forget to say the verse out loud.

5. **Build** as you go. Add new verses to the one you learned. Keep adding verses until you make a set of verses (like 3). Add new sections, when you can easily recall the previous sections.

6. Look for **key words** to be parking places for your brain.

7. Look for **natural patterns** in the text. Sometimes the Scripture is written with a pattern or a list already formed.

For example, the Fruit of the Spirit (in English) each set adds a syllable for each set. (not in the Greek)

Love	Patience	Faithfulness
Joy	Kindness	Gentleness
Peace	Goodness	Self-control

Lastly, don't forget to pray as you memorize. God gave you a brain. He is very interested in how you use it, especially as you store up His Word.