A Journey In to Memory

A RETENTIVE MEMORY

Hini Majesty Nunana | Memory Hacks | April 6, 2015

License: This book has been carefully written by the author to help reduce the amount of time spent on learning in regards to memorization and it's under a public/open share license. Meaning, you are allowed to download from the host site, share with friends and copy parts of interest in to individual work with reference to the source. Commercial reprint is not allowed. If you feel the need to contact the author. The author shall not be held responsible for any inconveniences caused as a result of using this book.

Contact:

Website: lixweb.wordpress.com (temporal site)

LixWeb fb name: LixWeb

Email: lixwebs@gmail.com

Author's Facebook name: Linux hini

You could contact us if you have any questions and we would be glad to help.

You could give LixWeb a like on fb to get latest info on projects following the release of this book.

NB: All information contained here was error free prior to the time it was being typed. If you spot any error in this book, you could visit LixWeb on facebook, post your findings on their wall and they would help you figure it out. Thanks

Introduction

How many times have you been told to memorize something? Whether it is for the purpose of a quiz, a grocery list, a phone number, a presentation etc. Whatever the need be, the truth still remains same that memorization forms a key component of our existence. Our entire educational system has to do with about 95% memorizing of important facts and figures even though practicing what is taught would help in quick recall. The above mentioned, has left our educational system with vulnerabilities that have not only helped produced a lot of walking text-books but also taken out the fun in schooling.

Why did I say so? Now let's consider the following scenario: A child born in today's information age would if lucky be sent to school at the age of say 3 or even younger. Most of such children while at school are not fully developed in their conscious mind to keep facts and figures the way older ones could. This in most cases is bridged by the use of colors (Visuals) and songs to communicate knowledge to such children. At about age 6, the logical mind (conscious mind) is a little developed to begin storing facts and figures. In most Ghanaian schools you would find kids of such age in class 1. Even at this stage, they still learn some facts through songs, rhymes and stories. As time goes on, these kids move up the educational ladder and they begin to start learning the hard way. They are told to memorize. The most common memorization technique employed here is known as Rote Memorization. According to Wikipedia, **Rote learning/memorization** is a **memorization** technique based on repetition. The idea is that one will be able to quickly recall the meaning of the material the more one repeats it. But how many times do you have to repeat a list of all the regions in Ghana before you could remember it? I don't know! Neither do you. The sad thing is, our educational system requires us to learn but has not provided sufficient training on how to learn neither does it come with a book that teaches us how to memorize more effectively.

Hope you agree to the popular saying "Time is money, speed is profit" indeed that's true. Maybe you enjoy having fun than sitting glued to your books trying to get some large chunks of outdated facts in to your head for a quiz. How would you like to study once, better, understand more and actually "Get" What You Want to Learn? Did I hear you say "Of book"? Nice said, just stick around because that is exactly what this book is about to give you. You are about to discover the "super" power which would help reinvent your approach to school. Just imagine how you would feel when you know, like you know, like you know that after every lecture, automatically your brain would have saved about 85% of the entire lecture where

you would not have to revise it yet you could answer questions that demand that piece of information at any time.

To do that, you have to know how the mind works in storing information and how you can format the things that you want to store in your mind to suit that nature. Only then can your mind perform such remembering wonders. In light of this, we may have to explore some latest discoveries in cognitive neuro science. Don't worry since the explanations are not rocket science. Very easy to understand.

We must admit however that "there is no such thing as something for nothing". To explore these features you must pay a price. Don't let that scare you out of it, the price you pay is almost negligible compared to the ramifications you get for taking that action. All you have to do is for the next 30 days, make a conscious effort to put all the hacks you would learn here into practice until you make it part of your culture (way of life). And at that point where it becomes a habit, you would be on auto-pilot. You could use the hacks with but very little effort. The ratio of the effort you put in to the results you get could be well explained by Pareto's principle "The 80/20 rule" which states that only 20 percent of your input produces 80 percent of the results.

There are some people who seem to possess super powers when it comes to studying and remembering facts, but the truth is Genius can be learned. It is not some God-given ability that exist only in a select few. All they are doing is approaching same subject in a different way other than the one you know. Simply, they know something you don't know and once you know what they know you could do what they do.

"Our deepest fear is not that we are inadequate. Our deepest fear is that we are powerful beyond measure. It is our light and not our darkness that most frightens us."
Dedicated to its author.

The mind

Memory

Memory is our ability to encode, store, retain and subsequently recall information and past experiences in the human brain. It can be thought of in general terms as the use of past experience to affect or influence current behavior.

In more **physiological** or **neurological** terms, memory is, at its simplest, a set of *encoded neural connections* in the brain. It is the *re-creation* or *reconstruction of past experiences* by the *synchronous firing of neurons that were involved in the original experience*. As we will see, though, because of the way in which memory is prearranged, it is perhaps better thought of as a kind of collection or jigsaw puzzle, rather than in the traditional manner as a collection of recordings or pictures or video clips, stored as discrete wholes. Our memories are not stored in our brains like books on library shelves, but are actually on-the-fly reconstructions from elements scattered throughout various areas of our brains.

Memory is related to but distinct from learning, which is the process by which we acquire knowledge of the world and modify our subsequent behavior. During learning, neurons that fire together to produce a particular experience are altered so that they have a tendency to fire together again. For example, we learn a new language by studying it, but we then speak it by using our memory to retrieve the words that we have learned. Thus, memory depends on learning because it lets us store and retrieve learned information. But learning also depends to some extent on memory, in that the knowledge stored in our memory provides the framework to which new knowledge is linked by association and inference. This ability of humans to call on past memories in order to imagine the future and to plan future books of action is a hugely advantageous attribute in our survival and development as a species.

Excerpt from http://www.human-memory.net/intro_what.html

Rote memorization focuses on learning through individual boxes of information. Like a computer filing system, everything is neat, organized and separate from each other. You have a box labeled science, one for history, one for the movie you watched last week and another for your job. These boxes are split into more boxes. Your science box has a separate one for biology and physics. Physics has unique boxes for different formulas and concepts.

The problem is that your brain isn't a computer filing system. It's a network of interconnected neurons. When you need information you are just hoping that you stumble upon the thread that leads to the box you want. Otherwise you're stuck. In this book, we would focus on a method of learning that is messy yet more effective. It doesn't put things into boxes neatly. Instead it tightly interweaves concepts together. For example, science concepts remind you of history which remind you of the movie you saw last week and the project at your job tomorrow

or the quiz you would take in a week's time. Within each general subject area, your web is even more tightly interwoven. Every concept in physics is linked with almost every other. Another example could be creating a web between what you ate this morning, and what you are taught in class which reminds you of what you would happen if you don't eat early. The brain craves innovation. Let's say you want to remember a 5 item grocery list consisting of:

1. Banana
2. Tomatoes
3. Meat
4. Egg
5. Water

NB: You need to actually visualize the following in your mind for it to work.

But instead of doing that through repetition (rote memorization), you imagine trying to open your front door at home, your key falls from your pocket and in an attempt to pick it up, the key began to grow larger and larger until it developed legs to walk. This key stood in front of you, obviously taller in height now and opens the door for you by itself and as you enter through the front door, you stepped on something soft and when you checked it was a banana someone had left there. Walking into your living room you saw a box with the inscription vegetables. You deepen your hand into it only to find out there is an unripe tomato. Finally you enter your kitchen and to your amazement you realize that ants have set up a complete factory (you can come up with a funny name for the ant's factory let's call it '*I am small but wise manufacturing company*') with some cutting meat, others carrying eggs and some fetching water. The most interesting part is, as these ants notice your present they all scattered. You have to exaggerate the visuals. Meaning you could make the ants bigger in size than they would look in reality. You could make them have lungs with which they breathe. The point is to mix all your senses in the visuals (sense of touch, smell, taste, hear, sight). It wouldn't be quite surprising to know that those who really imagined the above as instructed had an uncomfortable feeling when they stepped on the banana in their imagination. This can be explained by the long tested fact that "the human mind cannot distinguish between what is real and what is vividly imagined". Following that explains why they felt as though they had stepped on the banana in reality.

Indeed, that was a long piece up there. The technique used above is known as the memory palace. What you did there, you created a memory palace which fired a

lot of sensory neurons in the process. With time you would be able to create more solid ones that would fire neurons for all five senses. We would explore these techniques in greater detail. You succeeded in creating a web of neurons which link to one another. When you memorize this way, it becomes difficult to forget what you have learnt. Do you take notes while you learn for future reference? Now, with the following memory hacks all you may need is to document the way you stored that information in your notes instead of writing the information itself on paper. For ex, when you are trying to remember the 5 item list above, all you have to do is to remember how you stored it and remembering one scene would lead to another and another and before you know it, you would have remembered the entire list in order. This is far useful, since the memory stays for a very long time. The point is, we need to create a solid web of neurons that link information in our brain. Meaning there would be a lot of other pathways leading to an information if one is blocked.

A tight web means that when one pathway is blocked, there are hundreds of others that lead to the same information.

Let's begin to improve our memory now!

Key topics to be covered:

1. How to remember names
2. How to remember more of what you read
3. How to remember presentations
4. How to remember important dates
5. Remember numbers, equations and even the meaning of words in foreign languages

Before we begin it is worth knowing that your memory is not some fixed capability that is either good or bad. Just like anything that you can practice you can train yourself to have a better memory. There is no such thing as a bad memory. There is only a trained and an untrained memory. If you know the techniques we would cover in this book, you could train yourself to have an improved memory.

NB: For maximum benefit you are required to take an active part in the techniques discussed especially when you are given an exercise to do.

Short-term memory

We all know that our short term memory is somehow limited but the question is, if you were going to the grocery store, how many items would it take for you to make a list? If you were going for just two items you would probably go without a list. There is a certain tipping point say from 5 or 6 where you may decide to make a list so you won't forget the items. The good news is, by the time you are done with this book, you would learn new ways of remembering even a long list of items in order without the need of writing them down.

To demonstrate that, we would be using a technique to memorize a ten item list in order with no difficulty at all in subsequent chapters. This same technique could be used in remembering presentations or things that you have read.

Now, let's turn short term memories into long term memories.

1. Repetition

Repetition helps you remember information. We would be using repetition together with other memory techniques to create a blast memory. Remember a time when you learned a song?

How did you do it? Through repetition. You kept singing the song over and over and over until you could remember the lyrics of the song. What about a time your class teacher asked you to repeat after him/her an important word, definition or concept?
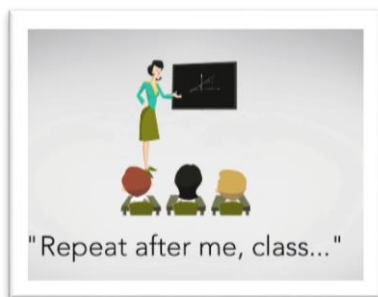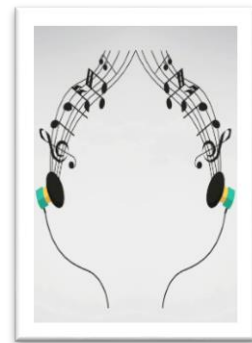
It is all about repetition. Keep in mind that the subsequent techniques we would discuss in this book would work even better through repetitive use especially when you are a beginner. Bear in mind that the mental effort that you make to remember something reinforces that memory through repetition. If you want to remember a piece of information, you would have to find a way of repeating that information a number of times either by:

1. Writing it down
2. Repeating it to yourself

3. Quizzing yourself at the end of the day

Wait a minute! Did I hear you say "but I know this already"? Yes it is true you know that. We would add more effective ones to the ones you already know and in no time you would be memorizing and remembering with no effort on your part. It would be completely automatic and you would be flying on auto-pilot.

2. Exaggeration

Do you remember the number of days that is in the month of May? What about August, July or April. It is sometimes easy to forget if there is 30 or 31 days in a month but which month is the easiest to remember? For most people that would be February. Why? Because February is that weird month that has at times 28 days or sometimes 29 days. The fact that it is out of the ordinary makes it easier to remember. Think about this. Why do sometimes in TV commercials people dress weird or the entire commercial is plain funny? The goal of these situations is to make the commercial more memorable. This leads us to our next principle "EXAGGERATION". If something is exaggerated, absurd or ridiculous, it is much easier to remember than something that is just ordinary or an everyday occurrence. Do you remember what you had for lunch yesterday, or last Tuesday? That might be easy to forget but if you ate at a place that gave you food poisoning you would probably remember that meal and you would also remember not to go back to that place. Things that are uncommon or exaggerated are always easier to remember. Our work here is to find ways to implement exaggeration when we are trying to remember things.

The easiest way to exaggerate anything is to either make it extremely big or very small or to come up with something in your mind that is absolutely impossible in real life. This is a very important memory principle. And when we combine exaggeration with other principles discussed in this book, you would find yourself better able to remember information more effectively.

3. Chunking

Let's say you are given a number to memorize, like the number 1776 how would you remember it? Well, you may just try to implement earlier discussed principles such as repetition by simply repeating 1776 to yourself but this number is pretty simple to remember since it is only 4 digits long. But what if you are given a 10 digits number to memorize like 3128574747? Now let's say you are given another number like 312-857-4747, which number is easier to remember? I think most people would agree the second number is easier to remember because it is

formatted into something like a phone number and it is broken up into parts. Comparing the two numbers:

3128574747 || **312-857-4747**

In case you haven't noticed, the numbers are the same. They are just formatted differently. One is a number in the billions that first appears difficult to memorize and the second is formatted like a phone number that is easier to memorize. Why is this? Because of a memory principle called Chunking. Chunking information always makes it easier to remember. Sometimes we chunk information without realizing it. If you had to get 9 items from the grocery store, what would be easier to remember? A mixed up grocery list such as:

1. Tomatoes
2. Turkey
3. Milk
4. Cucumbers
5. Ham
6. Yoghurt
7. Strawberries
8. Salami
9. Eggs

Or items that are categorized/chunked in to 3 areas of the store:

HARVEST/PRODUCE

1. Tomatoes
2. Cucumbers
3. Strawberries

DELI

1. Turkey
2. Ham
3. Salami

DAIRY

1. Milk
2. Yoghurt
3. Eggs

You would realize that the items have been put into categories which define them.

Look at the two options that you have. Notice how chunking makes things more maneageable for your memory.

Exercise 1: Try to memorize the chunked list on the right(picture). Start with PRODUCE and repeat the items Tomatoes,Cucumbers and Strawberries. Repeat it to yourself like several times and move on to the next category DELI and do same. Do that for DAIRY too. Now I want you to do one last repitition repeat to yourself, PRODUCE , DELI, DAIRY do it some few times. Now do you remember the list? You should write it down on a piece of paper as it has been memorized. I think that you would be surprised at how much easier the list is to remember when it is chunkeed into parts and note that this list would be a lot easier to remember if you were actually going to the store. Because you would see categories that would remind you of PRODUCE, DELI , DAIRY. The goal of this chunking technique is to help you organize information for easy recollection.

If you were able to remember the 9 item list, great Job.

4. Association

When you hear the word Katerina what first comes into your mind? It might be the name of someone you know or hurricane. Either way, you already have the word Katerina associated to something or multiple things in your brain. Association is a very powerful memory principle, it is one of the main ways that we learn things. *If you don't associate a new piece of information to something that you already know, it would easily be forgotten*. You remember we talked about creating webs of interconnected information?

Let's explore a discovery in psychology called the baker/baker paradox. A researcher shows that two people have a photograph of a man. One is told that the person's last name is Baker and the other is told that the person's occupation is Baker. A few days later the people are given the same photograph and are asked to remember the word associated to the photograph. The person that was told the man's occupation could easily remember it than the person that was told the man's name. Names are easily forgotten and that is not surprising to most people but what is interesting here is that we have the same word Baker, we have the same photograph of the same man but in one situation with the occupation, it is easier to remember and in another situation is easy to forget. Why is this? Well there is different amount of remembering that is going on in these two situations. Remembering the occupation of a baker invokes other memories to be triggered automatically and unconsciously such as how the baker might look, the kind of hat he would wear, what about him wearing an apron? Or flower on the baker's hand. You might even think of the presence of freshly baked bread. All of these memories may be triggered by been told that this person is a baker but contrast that with been told the person's name is Mr. Baker, that stands alone. No other memories triggered. If no other associations are made to the name it would easily be forgotten and that is what usually happens. We are discussing the baker/baker paradox because it involves association and association is a technique that would be included in other techniques to be discussed later in this book. If you want to make something memorable, you need to start by making it meaningful and that is done through association

5. Pictures

Have you ever heard the phrase a picture is worth a 1000 words? We would introduce the power of pictures and how they affect your memory. By the end of discussing pictures, we would try to double the capacity of our short term memory. Instead of being limited to storing a 7 item list which is standard, you would be able to remember up to 14.

Let's discuss why pictures (visual information) are easily remembered. Have you ever forgotten someone's name? I know you have. But do you realize that when you meet them somewhere, you would be able to recognize their face? You might forget their names but you may easily remember their face. Why is that? Because the human brain remembers visual information than abstract information. A face is very visual. You could picture it in your mind and hence can be easily remembered but a name is however somehow abstract and we must as well include some sort of repetition or association with it. It is very important to realize that you are very good at remembering visual information because we can leverage this information. Let's have an example.

The following is a 14 letter word you have to memorize:

XIBMPHDACTMTVX

First you could chunk the word into sub words by finding a pattern. If you looked long enough you would begin to see the words that have been placed in there. You would probably begin to see IBM, PHD, ACT, MTV and you would also recognize that the Xs' are used at the beginning and at the ending of the word. So chunking that word becomes:

X-**IBM**-**PHD**-**ACT**-**MTV**-**X**

To memorize this word, we would practice with some pictures in our mind to see how they can be helpful in remembering facts.

Let's begin with the first word we chunked; **IBM**. Imagine a guy working at **IBM** (how would he look like, what would he wear?) wearing a blue shirt with (the corporate colors of **IBM**) with thick dark rimmed glasses. Next, imagine that this guy working at **IBM** has a **PHD**, imagine it hanging on the wall in his office. In order for this picture to be effective you have to picture it hanging on the wall in his office. Do you see it in your mind? Next, I want you to imagine in your mind that this guy at **IBM** who has a **PHD** is studying for the **ACT**. I know that sounds weird; how can a person with a **PHD** be studying for an 'SHS' test? But you see, we are implementing *exaggeration* here. Lastly imagine him studying for the ACT whiles watching **MTV**. Funny right? ; Not the best way to study but **MTV** is on in the

background. At this point you need to review the sequence once more for repetition. For the Xs' just imagine them is book ends to the story that we have just created. The mind would remember that without any effort.

Let's recap a little bit. First we studied repetition as a memory technique, followed by exaggeration. Then we talked about associations and then pictures. Now we have used all those techniques to remember that 14 letter combination. I know very well that if you really did as instructed above this word combination would take months if not years before it begins fading out. Can you still remember those 14 letter words? Take a paper and try recollecting them in order. You would enjoy the process because of how fun it is to remember the combination using the story. If you are able to remember all 14 letter word combination, congratulations. You have doubled your short term memory. You were able to remember that word because of the following we created in your mind

1. Repetition
2. Exaggeration
3. Chunking
4. Association
5. Pictures

Great work!!!

6. Mnemonic Devices

Do you remember the word "BODMAS", that is just an example of mnemonic device. These devices just help you to easily remember information. They come in variety of formats such as songs, rhymes, acronyms, memorable phrases and can even take visual forms. A popular rhyme type mnemonic is "Thirty days hath September, April, June and November. All the rest are 31 except February alone which has 28 days clear but 29 days in each leap year. " .

The word mnemonics is derived from a Greek word known as Mnemonikos meaning "of memory" which is related to the goddess of memory in Greek mythology. Creating a mnemonic device can take a little bit of mental effort but next time you need a mnemonic device you could do a Google search on the topic you want to study + mnemonic devices and in most cases someone has already created a mnemonic device for that information. Mnemonic devices simply leverage most of the memory techniques discussed earlier and you can use them to improve your memory.

7. Notes

Research shows that the action of taking note strengthens the memory of that information even if you don't bother revisiting the note later. This doesn't mean you would remember the information though, but it strengthens the memory. Why is that? This is because this very action of taking note is a form of repetition. If you happen to review your notes, that would be another form of repetition. It is important to know that taking notes helps in remembering the information. But the main question has to do with how or when we should take notes. If you are reading something you know is of importance like for a quiz, or for a presentation at work, it is important to take notes but wait a minute! You may not have to do it the old boring and hard way.

Have you ever encountered a case where you are reading a text-book and you come across a sentence you feel is important to note so you write it down? What about reading the second sentence and then noticing that it is also important and so you write it down only to realize later that even the third sentence is way more important than the first two? If you continue that way, in no time you would be copying the whole book. It is true that when you get caught up in the phrase you lose sense of the bigger picture. People get caught up in the details when it comes to note taking.

A better way of going about this is to

1. Finish reading the paragraph first
2. Make note of key words or phrases
3. And then decide what you are going to highlight/note

You may not have to note full sentences. You may just have to highlight/note a key phrase or word and that would remind you of what that section was about. You could take notes as highlights, making notes in margins, underline, and use an app. It all depends on personal preference but the format in which you take the notes does matter. Have you ever taken notes that look at the end of the day like a jumbled mess? It is very difficult to review notes like this. How do you find specific pieces of information? A more generalize and a better way of taking notes involves *Mind Mapping.*

Mind Mapping is a note taking technique that helps you visually organize your information.

A general mind map would look something like this; on the right. With a central idea in the middle, if you are taking notes while you are reading, this might be the title of your chapter with notes extending out from that central idea, the surrounding boxes or bubbles would be your heading and subheadings within the chapter or main points from the material you are using. Mind mapping can include color and other visuals to help you remember more effectively. The reason mind maps are so effective in helping you to remember things is because they reflect how your mind works much better than linear based notes like outlines. Outlines put information in a specific order but not all topics are meant to be presented in a linear fashion. Outlines are great for sequential topics like history but most topics are not linear. For example, in the topic of physics we could talk about Isaac Newton's laws of motion, Einstein's theories of relativity, or we can talk about Quantum mechanics or Electromagnetism. All these topics are related to physics but they don't have to be in a set order.
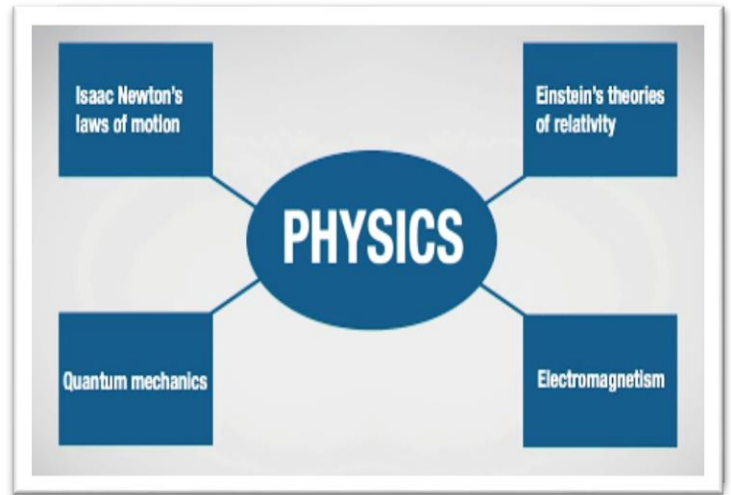
The same goes for other kinds of topics like law. There are so many types of law. We have contract law, Labor law, constitutional law and International law but they are all involved in a non-linear way around the topic of law. Mind maps are a great way of taking notes on a topic that is non-sequential but if you are taking notes on a topic like history that involves a sequence of events you should try using outlines. Take notes in the manner that you feel is appropriate.
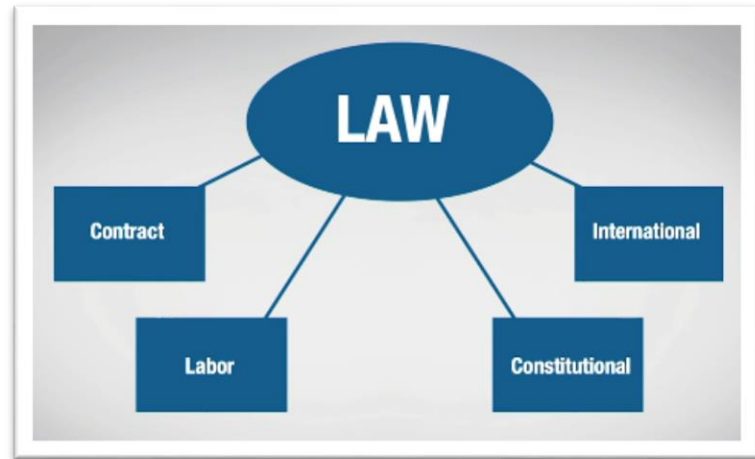
8. Songs, Rhymes and alliterations

Research shows that text associated with a music is easily remembered when it is learned as a song than when it is learned as a speech. A research published in a cognitive science journal shows that people can easily learn a new language more effectively when they sing the words rather than speak the words. Why songs are easily remembered? It is due to repetition. If the song sounds good, you would probably listen to it over and over and over again. The melody keeps repeating, the beat, etc. Even in some cases the songs could be associated with important events in one's life. The song you hear could remind you of your wedding or some important day in your life. If you link a memory to an emotion, it is more likely to be remembered. If you ever need to remember something, try singing it to yourself instead of just repeating it to yourself several times. Even though the information might not rely fit to a song, forcing yourself to create a song out of it, you would find it easier to remember the information.

Rhymes

Rhyming uses your auditory memory strength. If I say the name Bob, you could probably come up with a few words that rhyme with the word Bob. For example bulb. Rhyming, rhythm and repetition can all aid memory. If you need to

remember something, rhyming it could be an effective way of retrieving it from memory.

Alliteration

This can also help. Sometimes companies include alliteration with their products to make it memorable like a summer sale or a spring sale. Or sometimes companies would name themselves implementing alliteration just for the goal of making themselves more memorable to the consumer. Think of a company like Coca-Cola, Best Pie, etc. The fact still remains same that adding alliteration to things you want to remember can help big time. For example rather than just hoping that I would remember Tim's name I might think to myself Tall Tim or talkative Tim to remind me of the person. This way, I am utilizing the memory principle association and alliteration to remember Tim's name. Songs, Rhymes and Alliteration all fall in a category called Verbalization which relies on your ability to remember auditory information. How that auditory information is packaged as a song, rhyme or an alliteration makes all the difference as to whether or not you would remember it.

9. The Story method

The human mind is wired to remember stories. Why do you think stories were used to communicate knowledge prior to formal documentations? If you need to remember a set of details, try presenting it in the form of a story. Begin with the classic approach by saying "Once upon a time...." And add any information that you need to remember in that story. Don't forget to make it exaggerated. Stories are easier to remember than mere letters. Don't worry if the story doesn't make sense. As we mentioned earlier, stories that are weird or exaggerated or don't make any sense are easier to remember. Whether it is a list you want to remember or a definition, try making a story out of it. Making up stories is easy and a powerful way to cross your ideas together to make them easy to recall.

10. The link system

The link system gets its name from its behavior. It is a memory technique which involves linking pieces of information to the next and the next. Simply creating links in a memory chain. Each item should link you to the next if you are associating it properly. Link system is most useful for remembering things in a specific sequence and most items are required to be remembered in a sequence. A

speech for example or maybe an 8 step process you need to remember for a text, or maybe 9 things that you have to get done in a specific order. Let's memorize the following list using the link system.

1. Pen
2. Shoe
3. Book
4. Airplane
5. Eyeglasses
6. Fish
7. Coffee
8. Printer

We start by creating our first link. As you can see, the first two items on our list are pen and shoe and we have to link pen and shoe in a visual manner. Most importantly, the image we create in our minds must be exaggerated. We have already discussed the importance of exaggeration as a memory technique, so let's apply it here. For the purpose of this exercise, imagine that you are wearing gigantic pens instead of shoes

Picture how they would look on your shoes.

Imagine yourself walking in your pen shaped shoes and the ink is being smashed all over the floor.

Now that we have created that image, our next link is between shoe and book.

Imagine a large book walking around wearing a large pair of shoes. These images doesn't have to make sense.

The next link we need to create is between Book and Airplane.

Imagine a huge book flying on top of an Airplane. How would that look in the sky? You could even imagine that because of the current of the wind it has been tired to the airplane to prevent it from falling. Picture it in your mind.

The next link is between airplane and Eyeglasses. As you can see here, we are just taking the previous message and linking it up with the next one. Picture an airplane flying wearing large Eyeglasses in front of the plane (Exaggeration). How can an airplane wear eyeglasses? Well, we have to make things exaggerated and not meaningful.

Next we need to link Eyeglasses and Fish.

Imagine a fish wearing eyeglasses, how would that look like? You may even realize that as you are doing this you might feel like laughing. And that is the point. You are triggering a whole set of sensory neurons. You are indeed creating the web.

Next is Fish and Coffee.

Imagine a pond of coffee with over caffeinated fish jumping in and out of it constantly. The fishes are jumping in and out of the pond so energetically, imagine how the pond would smell like (a mixture of fish smell and coffee smell). Once you have that image in your head, we move onto our final link i.e. coffee and printer.

Coffee and Printer

Imagine you just clicked print on your computer and

Your printer is spitting out coffee on the paper instead of ink. And as the document is printed, you could smell coffee in the air. Each one of these images should be pictured in our mind in order for the memory to take hold. Meaning, do not see them here only, picture them as instructed.

Let's recap. You are wearing pen shoes with ink all over the floor. A book also wears big shoes and is walking around. An airplane has a big book on it. The airplane is now wearing an Eyeglass. A fish also wears an eyeglass. Now there is a pond of coffee in which fishes are jumping. You have a printer which prints coffee on your document instead of ink. As you can see, all the items on our list could be easily remembered in order. One exaggerated image links to another in this system.

11. The memory Palace/memory Loci

This is a memory technique developed in ancient Greece over 2000 years ago. It was used by the Greeks and later by the romans to memorize lengthy speeches. Loci is the plural of the Latin word loci meaning place. This strategy is based on the fact that you can best remember places that are familiar to you. Like your home or your workplace. It was invented by the Greek poet Simonides who is the lone survivor of a building that collapse at a dinner that he attended. He remembered who was sitting where to identify everyone. He realized that through this, it would be possible to remember anything by associating it with a mental picture of a location. This memory palace technique is very easy to implement. Here is what you do:

1. Visualize a place you are very familiar with. Let's start by visiting your home.
2. Visualize a series of ordered location within your home. Make this locations in a logical order so the first place could be your front door. The next location within your home might be the living room. The next could be your kitchen. Picture yourself walking through your home in a particular

order. Pieces of furniture could also serve as locations within your memory palace.

3. Visualize each item you need to remember at a place within your memory palace that you have decided on. This could be items on your list or topics for a presentation you might be doing. Whatever these things are, you need to visualize them and implement exaggeration. Since exaggeration makes things more memorable. Example, let's say:

We are trying to remember a grocery list and item number one is carrot, if you have a mail box in front of your house, you could imagine it is the first place in your home memory palace. You could imagine yourself pulling out a bunch of carrots from your mailbox.

Next let's say item number two on the list is broccoli. If the next logical place in your palace is your door, you could imagine your dog's coming to meet you in front of your door with broccoli in their mouths. You could visualize the broccolis as large. And you could go on from there to item number 3 and location 3 etc. But be sure to exaggerate your visuals. Once you have placed all the items at their individual locations in the memory palace, don't hesitate to repeat the order in your head several times since repetition never ceases to be helpful. The great thing about this method is that you could have various memory palace to help you remember various things. One memory palace might be your home, another your school, another your church, your work place etc. You could also use a road that you use on a regular basis by

placing things at different places on the road. This technique can be used to remember a list of almost anything. No matter where you utilize it, they are effective because they utilize places you are already familiar with. So you can see a bit of association here. Linking to things you already know. Even if you had a 50 item list you could use a memory palace. You could keep 5 items at a location and another 5 at another location etc. Just make sure that 5 items is somehow interacting with each other in that location. And make sure you turn these things into concrete visuals. That include exaggeration. Now that you know the basis of how memory palaces work, try practicing it.

Pick a location, figure out the order of locations within the memory palace and then apply it to something you need to remember. For example, think of todays to do list and try to memorize it using the memory palace.

The more you practice these techniques the better you get at it.

12. The similar sound technique

In this lesson, we would be discussing a technique that would help you to remember words you aren't familiar with. It is known as the similar sound technique. It builds on the other techniques we have been discussing in this book. Let's consider this simple example then we would move on to a more complex one. Let's take the word "Claustrophobia" which means the fear of closed spaces. If you have to teach the meaning of this word to a kid who isn't familiar with it, how would you do it?

1. You would first begin by identifying a similar sound in the word that the little kid would be familiar with. If you take the "*Claus*trophobia" you could take the first part of the word "Claus" and associate it to Santa-*Claus*.

2. You would then try to link Santa-*Claus* visually to the meaning of fear of closed spaces. So, we could tell this kid to imagine Santa-Claus being afraid of entering tight chimney spaces why because Santa is a big guy and he might get stack. Or Santa is afraid of getting burned by the fire at end of the chimney. Regardless we reinforce the image that Santa Claus is afraid of tight chimney spaces. Later on when asked to remember the meaning of the word, what would be the first thing that this kid would remember about the word *Claus*trophobia? They would see Claus and that

would immediately remind them of Santa which would remind them that Santa was afraid of tight chimney spaces which would remind them of the meaning of the word "A fear of tight closed spaces".

Next let's try a rather unpopular word "Belone-phobia" meaning the fear of sharped objects. To use the technique:

1. Begin by identifying a similar sound that can be linked to a visual which could be used to create a story of the meaning of the word. For this example we rhyme the word Belone with balloon. Next we would imagine this balloon very scared of a very sharp object like a needle. Imagine that the balloon is sweating as the needle is about to pierce it. If you can imagine a scenario like this, what would happen the next time you see the word Belonephobia? You would first identify a similar sound and that would remind you of the balloons story which would remind you of the meaning of the word.

Let's finish this technique by trying one last word "Anthro-phobia" meaning the fear of people. To use the technique:
1. Identify a similar sound. Since we already know that phobia has to do with fear, we would focus on only the first part of the word "Ant" (Chunking).
2. Let's imagine the footsteps of people crashing an entire village of ants. This activity has left the ants in a constant state of fear of people.

Later when you see the word Anthrophobia, you would identify the similar sound in this case Ant, and this would remind you of the ant village being destroyed by people and finally the meaning of the word.

You could use this technique to memorize definition of technical words you are not familiar with and also the meaning of words in a foreign language. The same ideas would apply. If you had a word in French you are trying to memorize, found a word that sounds similar in English and link them up in a way you could

visualize, exaggerated and then try to associate the meaning of the word with the visuals. This technique makes use of the fact that humans are very good at remembering visual information and exaggerated items.

13. The numeric Peg System

You may think that remembering a ten item grocery list is difficult to remember especially in order. But with this system we would be memorizing a 10 item list in order. The list:

1. Bread
2. Milk
3. Tomatoes
4. Soda
5. Turkey
6. Chips
7. Strawberries
8. Deodorant
9. Cucumbers
10. Cereal

The reason this system is called the numeric peg system is because each number is going to be pegged with a visual or a picture in your mind.

For example the number 1 is going to be pegged to a pencil. Something that you can easily visualize. You need to rememember this right now. That the number 1 is associated to a pencil why because it has the general shape of a pencil. Before we move ahead memorizing the ten item list, it is important

we first have to visualize each number in our minds. So 1 is a pencil.

Pencil

Next, 2 would be pegged to a swan. Why because 2 has the shape of a swan. Before we proceed I need you to make sure that you have commited that memory.

3 would be linked to mcDonalds. You have to look at the m like 3.

The number 4 would be seen as a chair that up-side down. But it is important to remember that 4 as a chair. Lets move on to 5.
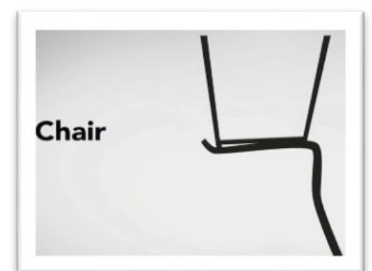
5 is a hook. Or better still, picture 5 as a hook. It is important you do the work. Before we proceed, it is very important that we remember the first five.

1 is a pencil.

2 is a swan

3 is mcDonalds

4 is a chair turned upside-down.

5 is a hook. This is a little tricky but you could visualize the circular part of the 5 as one that is ending in a hook.

Now that we have that, and you could actually remember the pictures associated with all the 5 numbers, we could continue. Now lets move on to 6 through 10.

Remember that 6 is a cherry because the number 6 has a similar shape to a cherry.

Remember 7 as a lightining bolt. Picture the number 7 as a lot of lightning bolts .

Now picture 8 as Racetrack. Very important you do the work. It is somehow weired to picture 8 as a race track. But for the purpose of this exercise you have to do it. You could come up wit your own visuals later when you know how to use these techniques.

And number 9 is a balloon with a thread holding it from getting away. It is very important you use the images provided here as guides to create the mental visuals. Keep in mind these memory technique would only work if you make the mental effort to visualize these images in your mind.

Now the last one is 10. 10 is going to be associated with a plate setting with a silver wear such as fork,nife and a plate. The fork woulr represent the 1 and the plate would represent the 0 in the 10. This is due to their shapes.

Now lets do a quick recap of 6 through 10 just to make sure you have them stored in your memory.

6 is a cherry

7 is a lightning bolt

8 is a RaceTrack

9 is a balloon

10 is a plate setting.

Now that we have pegged the numbers 1 through 10 to visuals, we can start implementing the numeric peg system to memorize the list.

14. Using the numeric peg system

In this lesson, we would be using the numeric peg system to memorize our 10 item list. Before we proceed it is important we remember the visuals each number pegs to. This is the list to be memorized.

1. Bread

2. Milk

3. Tomatoes

4. Soda

5. Turkey

6. Chips

7. Strawberries

8. Deodorant

9. Cucumbers

10. Cereals

Here is how this is going to work. The fisrt item on the list is a Bread.

The number **1** has been pegged to a pencil and you remember why. Since the first item on the list is bread, we need to come up with an exaggerated visual made up of bread and a pencil. You need to exaggerate all the visuals we create. As you may recall from our earlier lessons, exaggeration helps us to recall very well so all the visuals we create . Nothing beats repetition, so as you create those exaggerated visuals repeat them in your mind until you can easily remember them. For the sake of this lesson, imagine yourself holding a pencil and on the top (tip) of the pencil is a very large loaf of freshly baked bread. Imagine how it would smell like and even taste like. Can you see that this is so exaggerated? How can the tip of a pencil suspend a large loaf of bread? It is important you do the work. Here is how it would work later. When I ask you what number 1 is, whats is the first thing you would remember? You would remember that the number 1 is a pencil, and that would remind of the bread-pencil visual you have created. To make this images more memorable you can include your other 5 senses into this memory. We are already imagining what it would look like using the sense of sight. But what would it smell like, what would it taste like. Your 5 senses help you remember things.

Now lets move on to item number **2.** Two you remember is associated with a swan and we have to remember milk. So I want you to imagine a swan swimming in a pool of milk. That's kinda weird right? Swan swim in water and not milk, so this is an exagggerated visual.

Number **3** is linked to mcDonald's so imagine going to mcDonald's to order a burger with chicken slides only to be given a burger with large slices of tomatoes instead of chicken. Imagine how furious you would be. Imagine how it would taste like, not very good I guess. Imagine how it would smell like.

Now we are on number **4** which represents a chair and the item on our list is soda. I want you to picture a chair with legs made out of soda bottles instead off wood or metal. How would that look, imagine yourself going to seat on it. How would you feel like. I will be a little scared I may fall.

The number 5 is a hook and the item we need to remember is turkey. So I want you to imagine it is thanksgiving day at home and the door bell rings. You check and it is a pirate who happens to be an uncle your mom invited (even though it is weired to invite a pirate into your home) over to come and cut the turkey for the thanksgiving dinner. As this pirate sat at the table, he uses his pirate hook that he has on his left hand to start carving the turkey meanwhile you and your mom are just sitting at the table and you are both just discussing since that is not the best sanitary way of carving a turkey, besides you don't even know where that hook has been. Imagine this weird scenario. Later when you are asked to recall what number 5 was, you would start by remembering that 5 is a hook because 5 looks like a hook as we saw earlier then you would remember the pirate that showed up at the thanksgiving with his hook over hand.


We are half way throught the list. Lets move on.

Now we are on number 6. And since is visualized as a cherry because it looks like a cherry. The item to remember is chips. I want you to imagine havung cherry flavored chips. Like the one in the picture. What would they look like, what would they taste like? Imagine that for number 6. Cherry flavored chips.

Number 7 is a lightning bolt and the item we need to remember is strawberries. Imagine a very large strawberry been strucked by a lightning bolt at the window of your room. Imagine how the juice from the strawberry would splash on your window and even some into your eyes. So the strawberry explodes and some of them hits your new white shirt you are wearing. I want you to imagine this strange scenario to remember number 7.
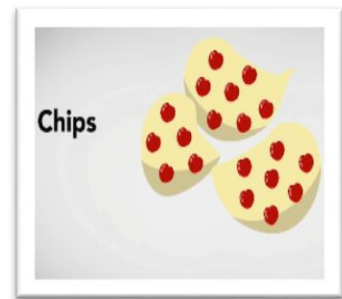
Now we are at nimber 8 which is a Racetrack and the item to remember is deodorant. Now I want you to imagine race cars on the track and as they bend sharp curves on the track, their tyres heat up due to friction from the road and instead of smelling the rubber burns, you instead smell some pleasant deodorant smell from the tyre and very soon from even the car itself. Make the visuals exaggerated.
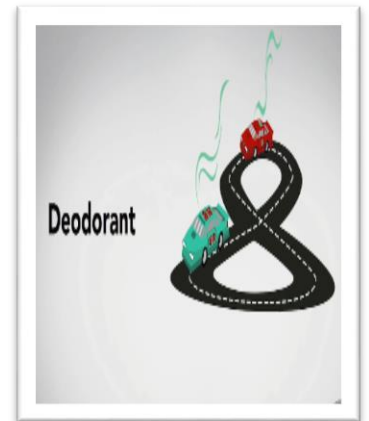
Number 9 is a balloon and the item to remember is cucumber. Now imagine a large cucumber shaped balloon flying around. Visulize it to be giant in nature. What would it smell like outside if a cucumber is flying out there. You may already be familiar with the smell of fresh cucumbers.

So now when I ask you to remember what number 9 is, you would remember 9 is linked to a balloon and then you would remember that in the visuals, there was a large balloon shaped cucumber flying around.

Finally, lets move to 10. You would remember that the number ten visually stands for a plate setting. Imagine that you are walking on the road and you come across an intersection/round-about and at the middle of the roundaabout is a big bowl/plate coursing a lot of traffic. Iagine drivers shouting and blowing their horns. Imagine people looking at this miracle. And as you got closer and closer you realize that it is raining cereals from the clouds into the plate. Whats the color of the first cereal? Just exaggerate things here. We are done with memorizing the ten item list. Now pause and try to remember all the items on the list in order. Begin from 1. Where 1 is a pencil suspending bread. Next ,2, a swan swimming in a pool of milk. Next 3, a tomatoes burger from mcDonald's. Continue from here.
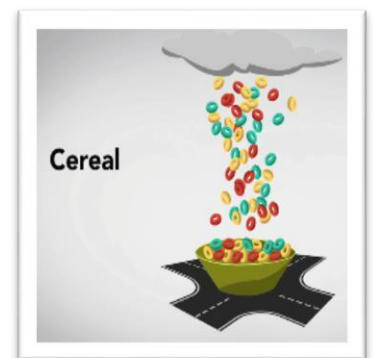
Hurray! If you were able to remember the time item list, then congrats and well done. You would soon be doing that on autopilot if you practice enough. Notice how visual and imagery help you to pull out the information from your brain with ease. Try testing yourself sometime later to see if you can still remember the items in order. If you did the work, you should be able to remember the list with no problems. This numeric peg system could be used to remember topics covered in a chapter that you read. All you have to do is to put each topic in the position in which it has to be remembered and come up with your own exaggerated visuals. Rehearse them a few times and you would find it very easy and fun to remember just about anything.

You could use it to remember presentations too.

15. Memorizing more than a ten item list.

In the previous chapter, we learned how to memorize a 10 item list using the numeric peg system. I have a good news for you! And it is: the neumeric system could be used to memorize more than 10 items. Here is how it would work. You need to come up with a theme for the numbers 11 –20,21-30,31-40 and so on and so forth. Lets say the theme for anything between 11-20 is black oil.

Now lets take an example of how that would work. Lets say that we need to memorize a list that is more than ten item and in this case instead of our first item beign bread, our item number 11 is bread. Now, you have to come up with a visual that would include a pencil, a bread and our theme in this case black oil. Why pencil and not something else. Remember the number 11 when seprated looks just like two 1's coming together. Considering the last digits of each of the numbers, the visuals associated with them in the earlier examples could be used. So, borrowing from the earlier example where a pencil suspended a loaf of bread, we could imagine a pencil suspending on its tip a loaf of bread. We need to include the black oil in that pencil- bread visual. We could imagine that the black oil has been spread all over the bread (like how butter would). You could even imagine yourself taking a bite out of it. Probably wont taste good.

For number 12, we would still grab the 2 being the last digit of the 12 and recall the scenario from the above examples but this time we would have to include black oil since it is our theme for 11-20.

If you think smart enough, you could see that chunking is at work here as well other techniques discussed earlier.

Now we know that the number 2 was linked to a swan swimming in a pool of milk in the earlier example but we have to include black oil now. So we could imagine that this swan is swimming in the pool of milk alright but at this time it is covered in black oil and the swan is leaving behind a trail of oil as it swims in the pool of milk. When you are asked later what item number 12 is, you would first remember that it has a swan and black oil in the visual since black oil is your theme for items 11-20. Now linking the images in that visual would remind you of milk. You could go on and on by establishing different themes for 21-30,31-40 etc.

NB: Using the numeric peg system to remember a 40 list item may require a bit of mental effort on your part but if you do it and you repeat it a few number of times you would remember the lsit far easily than just using rote memorization.

16. Remembering names

Have you ever forgotten someone's name? Yes maybe a few times. In this lesson, we would go over 5 techniques that if you master, and make a habbit, you would be storing names into your head by default without forgetting them.

Lets get into that in a second but before we do, first we should always remember: MOM
M- motivation : what is youe motive for action? What is in it for you? Why do you want to remember the fellows name? If you can't come up with a reason to remember their names you may not be able to remember. Because reasons preceed results. Reasons first before results. It goes from your head to your heart to your hands. If you are not implementing, you are not accessing your emotions.

O-observation : be present and be quite in your mind. Listen to them as they say their names and do not have your own self talks in your mind.
M

- Pay attention

    It sounds somehow basic but don't under estimate this. It is very common that most people really don't pay attention when someone is telling them their names. It is obvious that when you pay attention while the person introduces himself, you would be better at remembering it later. Becareful not to underate this first technique because if you miss this one, then the others wont help.

- Repeat name

    Immediately you are told the name, repeat it. Remember we studied earlier that repition helps us with strengthening our memory. For example you might reply "nice to meet you janet". This gives you the chance to repeat the name to yourself. You may even repeat it again during lyour conversation. But don't repeat it too often otherwise you would come off as a little socially awkward. One benefit here is that you would find out people are more likely to pay attention to what you have to say when you include their name in the conversation. You could also quiz yourself after the person walks away to see if you can remember their names.

- Make a connection to the name

    You have to hook that name to something that you already know. The way we learn new things is about associating new memories to those that already exist. You could link their names to someone you already know or someone who is famous with that name. whenever someone tell you their names try to link it to someone you already know and imagine theem standing next to that person. As you are imagining a celebrity or someone you already know standing next to them, you are using visualization and location to store that memory. As we mentioned in our earlier lessons, human beigns are very good at remembering visual information and location based information than just text based information. Even if there is no connection you just made one. And because of that connection you would be better at recalling the name later.

- Link your impression

Everyone has an impression on you when they see you for the first time and you do same too. What's the first thing you notice about this person? It could be their eyes, their hair, thelit color, the way the walk, talk, it could be their outfit, it could even be something about their personality. Maybe you notice their very energetic or they are always similing. Find a way of connecting your first impression to their names. An easy way to do this is to come up with an adjective for the perosn. If for example a guy named bob is wearing a blue tie, I might repeat to myself blue tie bob. I am linking my first impression, and repeating it so I could remember the name. well if there is someone named Ally and she comes out very energetic, I might repeat to myself "Energetic Ally" again, I am linking something about them, their first impression to their names and using repetition to reinforce that.

-   Find a word that rhymes with their names
    If it rhymes it sticks. Some names are easy to rhyme like bob – job, matt-bat but some names could also be a little difficult to rhyme. Like anthony . I would pair that with symphony. In such cases you could implement some of the earlier discussed techniques.

17. Remembering presentations.
    Using earlier techniques discussed you could memorize presentations. Before we continue, it is important you are familiar with all the techniques that have been discussed so far. You are adviced not to memorize your entire presentation word for word.Have you ever heard the saying "when you get caught up in a word, you loose sense of the bigger picture?" this is what happens when you try to memorise anything word for word in order. Instead you need to see your presentation as a series of points you would talk about. You need to chunk your presentation into parts. So if you were giving a presentation on speed reading, you could chunk it into three parts. You could talk about speed,comprehension and retention. From there each topic has its associated sub topics. You could also use the numeric peg system and the method of loci. If you are using the numeric peg system, you need to start by writing out each topic you are going to cover in an ordered list from number 1,2,3 and through each topic that needs to be covered. Once you have done that, you start out with the number 1 which you would recall is associated with the visual of a pencil and then create an exaggerated visual that combines pencil with whatever topic you would be covering.
    Exercise: try using the numeric peg system and the memory palce technique to remember a presentation on the big six in Ghana.

18. How to remember more of what you read. (Multiple-Reading Process)
    In this lesson, we would go over a strategy that would help us remember more of what we read. It consists of a preview, an overview and a read.
    Preview: First step where you read the introduction and conclusion of your text.
    Overview: The second step where you read the headings and all the bold faced words, or the first sentence of each paragraph if you don't have headings. This leads us naturally to our third and most important step
    Read: Lets read all the material that we have been getting ourselves familiar with. Let's consider how most people read. Most people start from the beginning and then they read

linearly to the end. But you don't have to read all information this way. Infact, reading this way is one reason people read slowly. "If you don't know what to get from the material, you are going to have to read it slower". Imagine the alternative. If you begin by reading the introduction and the conclusion, and then reading all the headings and keywords, just see the advantage you now have. If you start reading the material, you should be able to read a lot faster since you know what to expect and comprehend better. What about retention? Our ability to remember largely depend on repetition. By doing the preview and overview, you are repeating the material several times. Most people read something from beginning to end and they wonder why they forget everything the next day. The answer is due to lack of repetition. If you don't preview and overview the material then you have only one repetition.

19. Remembering important dates

Rhymes could be used to help you remember dates. The 73 at the end of 1973 could be ryhmed with something like heavenly-tea since they have a rhyming pattern. You then build an image based on this. You could imagine tea falling from heaven. For example, 1861: civil war, you could pick the 61 and rhyme it wiith sticky-gun. Imagine a civil war soldier sufering with a gun covered in honey; a sticky gun. 61, sticky-gun. Little rhymes like this help us to remember dates.

You could also learn dates using the numeric peg system.

 So if you have to remember a date like 1843, you could create a visual consisting of a pencil, a race-track , a chair and mcDonald's in that order. You could also include in your visual what it is that you have to remember. Make sure to make your visuals exaggerated making them easily memorable, You could combine the numeric peg sytem with the memory palace technique. Here is how it would work. If the number to remember is 1672, I would picture a pencil representing the digit 1 at location 1 say front door. I would picture the pencil nailed to my front door. Then location number 2 might be the walk way of my home. I would imagine a large cherry sitting on the walk way. The to location 3 and to 4. Do the last two by yourself. Like a lot of memory techniques, we are trying to use pictures, locations, associations and exaggeration to remember these dates.

Lets say your mom's birthday is on june 1st this translates to 6/1 so I need to remember the digits 6 and 1. Since 1 is a pencil and 6 is cherry, I would imagine my mom coming home with a large birthday cake and instead of having candles on it, you have pencil's holding cherrys on

their tips. Whenever you remember the pencils and the cherrys you could easily remember 6 and 1.

20. Remembering numbers
    If your number is 10 or 7 digits long, you could turn them into phone numbers. Your digits might be 8574747 and you could turn that into a phone number. 857-4747. Repeat that to yourself until it becomes extremely easy to remember. You could even imagining yourself dialing that on your phone. Use chunking and it would help you. What if the number is 4 digits like 1152? Try turning it into time like 11:52 am. You might be even thinking about what you would be doing at this time.
    Here is another trick you can use. If you have to memorize a number like the speed of light which is 299,792,458 meters per second, you have to come up with a sentence that starts with a two letter word, a nine letter word till you get to the last digit in the number you are trying to remember. We could use this sentence for the above:

    "We guarantee Certainty, clearly refering to this light mnemonic"
    When you count the alphabets in each word above, it should get you the number you memorized. You could use visuals to make things more effective. You have to repeat this phrase to yourself a number of times. This can be used to memorize extremely large numbers. But how we can we come about the 8 letter words, the 9 letter words quickly? Just do a google search and you would come up with a quick list that would provide you with options. Try some of these techniques out for yourself and you would be better at remembering numbers.

21. Memorizing formulas

You may consider memorizing of formulas as difficult. But with a little tricks and techniques you could have fun memorizing formulas. We could apply some of the techniques discussed earlier in this book to quickly memorize formula's. Keep in mind that the best way of memorizing a formula is by first understandingh how the formula was developed to begin with so that when you forget the formula, you could easily backtrack and make it up.

Lets go over some techniques that we can use to better memorize a formula.

The traditional way would be to write the formula down, and repeat it again and again until it sticks but whiles that is helpful, quizzing yourself on it would even be more helpful. If it was a long formula, your first quiz would be rather difficult. You may not even remember it at all but that's ok. Look back at the formula over and over again until you can easily repeat it. You know that one already so lets move on to better ways. Repeat and quiz.

You could also remember formulas through mental pictures and exaggeration. Here is how this works. Each number,variable, symbol must be represented by something that is easy to picture. You could use the numeric peg system to remember the numbers as we discussed earlier in the book.
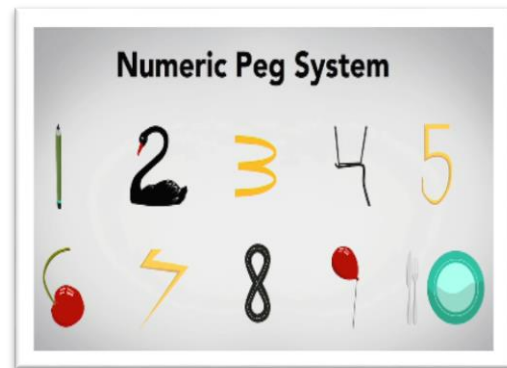
Now lets assign pictures to the most common operators. Since this operators are some form of actions that are happening within the formula, lets picture this operators as some form of action.

Numeric Peg System

$+$ something beign stacked on top of something. For example

$1+6$ we could imagine a pencil with 6 stacked on it. The images should be exaggerated so that they could stick vividly in your mind. So you can imagine the pencil stacked in the cherry and the cherry's juice is dripping down the pencil.

1 + 6
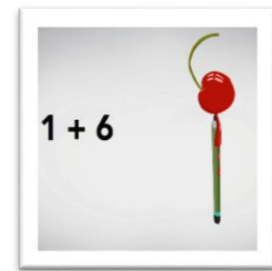
$-$ (minus sign) Something beign taken away or stolen from something else

For example $3 - 2$ could be a swan, the number 2 stealing a bunch of burgers from mcDonald's 3. The sillier the imge, the better.

:- (division sign) could be best represented by a home floor with two floors. On the top floor of your equation(numerator), certain things would be happening there based on the operators and the numbers that are present there likewise at the down floor of your equation (denominator).

*multiplication sign would represent something beign duplicated in the mental image we create.

X^2 exponent could be represented by something flying or floating

() Something hugging or hidding/ a hug happening in your image or somethings typed together.

= something appearing out of a magical proof of smoke

Now that we have the imges for the various operators we have to come up with images for the variables.

Π pie could be represented with an actual pie

X intersection or criss-cross airport runways.

Create the images for the once you need.

Now that we have the images for the numbers, variables, operators and symbols, we have to create a visual story about the formula that you want to remember. Rehearsing the formula with the story that you came up with is still very important and obviously requires some mental efforts but this is a much more easier way to remember a formula than mindless repetition. Praticing the techniques would make you better at them and in no time at all you would use them on autopilot.

22. Remembering your to-do list

A to do list could be remembered by using two tecniques discussed earlier. i.e. the numeric peg system and the memory palace technique.

To use the memory palace technique, you need to put the items on your to do list at various memory locations in your palace. The locations should be logical so that you could actually picture yourself walking through them. If the first item on your to do list is to finish this book on memory, you have to come up with a visual which represents memory. Example, a brain and then picture it at location 1 i.e. the front door. Or whatever memory location number 1 is, in your head. Be sure to exaggerate this images. And the easiest way to do this is to make the very small or really big or make the thing do something that is impossible. So to remember that you have to finish this book on memory you could place a large brain at the front door. Maybe it is holding a memory device like a flash drive and telling you not to forget to finish this book.

And now place the visual of your second to do item at location 2. Continue till you exhaust the list and repeat the images and their locations in your mind until you can easily remember them.

So, that is how you could use the method of loci/memory palace.

You could also use the numeric peg system which we have already discussed in earlier discussion. With the peg system, if item 1 is to finish this book on memory, then you could visualize a pencil with brains as its eraser and anytime the eraser is used, it is getting angry because it is forgetting information. Proceed to item number 2 and to the next and the next and the next and the next...... till your list has been exhausted. Each time you have to remember the items, you just have to remember the images attached to the numbers and then you would remember the visuals. Then you could extract your information from that.

23. How to memorize words in foreign languages

Earlier in this book, we discussed the similar sound technique which we used in remembering meanings of technical words in english but we could also use this technique for foreign languages. Same methods apply. If you find a word in a foreign language that you are trying to memorize, try to find a word that sound similar in english. When you find the similar sound, try to link it to an image. Something you can picture in your mind and then try to link that visual to the meaning of

the word in a way that is exaggerated. Again, human beigns are very good at remembering visual information. Lets take the spanish words Barco for example. Barco means boat in spanish. So first lets identify a similar sound in english. The first sound I get is the sound bark as in a dog barking. You might imagine a dog in a boat barking with an O coming out of its mouth. You may also imagine the bark of a tree carried by a boat. Repeat these images until you can easily remember them. Look for a similar sound in the word, link that sound to something that you can visualize, and then try to associate that visual with a meaning in some sort of exaggerated or silly way.

24. Memorizing scripts word for word.

Use repetition. Quiz yourself. Read aloud, walk and talk.

You could chunk your lines into logical parts.

You could also try memorizing a chunk of lines and then taking a nap for the mind to fully process that data. Research shows that sleep helps the mind to organize and strengthen memories. You could combine some of the techniques discussed here with the memory palace technique which involves placing things at various locations. You could then place each chunk of line(visuals) at various locations throughout your memory palace.   All mind techniques require a bit of repetition.

RECAP

1. R ----------- repetition
2. E ----------- exaggeration
3. C ----------- chunking
4. A ----------- Association
5. P ----------- Pictures

Finally, we have come to the end!!!
 NB: Please implement the techniques. The more you practice them, the better you become at it. The techniques we discussed all have one of the following core techniques.

References

Paul novak ------- Iris Reading (improving your memory---lynda.com)

Jim Kwik --------- Inspiration

Scott H Young ----------------- http://www.scotthyoung.com/blog/

NB: All images used and most of the presentation is a product of lynda.com. The author took his time to gather infromation from various sources and wrote this guide according to how he understands the subject.