CAHIERS MAGELLANES-NS
Volume 06 Issue 2
2024

ISSN:1624-1940
DOI 10.6084/m9.figshare.2632574
http://magellanes.com/

LEARNING MADE EASY WITH SCIENTIFIC MEMORY TECHNIQUES AND BRAIN SCIENCE

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Keywords - Brain Science ,Mnemonics ,Memory Techniques, Imagination , Visualization , Association , Recollection , creativity , positivity , learning techniques , exam planning , revision , recollection, retention , learning habits

Abstract

The twenty-first century is considered to be the era of globalization, telecommunication and digital technology. These advancements in science, information and technology have proved to be a boon in many fields (for example – electronic gadgets like mobile phones, computers etc.) and have also helped in the complexities of life (for example – internet addiction, mobile phone addiction etc.). Have also contributed.

These complexities demand solutions to pre-existing problems as well as new problems in different areas. Many of these problems are important because they relate to the survival of mankind. This is where the role of creativity becomes relevant as it helps in providing unique solutions to problems. Memory in the brain is a mutual combination of any two information, this is what we call association.

If we use this association as a method, then we can remember everything that we want to remember. The importance of remembering anything is only when it is remembered on time. To remember whatever is in your mind in the form of memory, what we do is ask any information related to it in the form of a question.

IMAGINATIVE ASSOCIATION

If you have the world's best computer but its hard drive is empty, without any data, it won't be of any use to you. To make it useful, you'll need to load data, or memories, into it. Similarly, everything you know, all your knowledge, and every bit of information in your brain exists in the form of memories. In other words, the brain is a repository of memories. If things in your home are kept in a disorganized or haphazard manner, you won't be able to find them when you need them. However, if they are placed in the right spots, you will find them easily.

Just as you might think you've lost something if you can't find it in your house on time, the reality is that the item is still there, just misplaced—placed somewhere you don't remember. To avoid the problem of misplacing things, you need to designate specific places for everything in your home. When items are kept in their designated spots, they don’t get lost. Similarly, to keep memories in the right place within the 'house' of your brain, you can use imaginative and creative associations.

Imaginative Creative Association: Association means a connection, a bond that links two things together. When two things are linked, you only need to remember one of them as long as they are connected. If the items are separate, you need to remember both independently. If there is an association between them, remembering one will automatically bring the other to mind. Creative imagination in the brain provides the basis for this association.

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A to Z Memory

Today, we will discuss what is essential to make our memory powerful. A strong memory has certain characteristics. Just like how using an adhesive substance helps bind two objects together strongly, adding specific features to information can make it a strong and lasting memory. For example, cement is used to bond bricks and stones together securely. Similarly, by incorporating certain features into the information you want to remember, you can create a strong and permanent memory.

If the following characteristics are added to the information you want to remember, that memory can become strong and permanent:

*A = Action: The brain quickly and firmly remembers active information.
*B = Big: The brain remembers information that is large in size or impact better.
*C = Colourful: Colourful things and information are remembered more strongly.
*D = Dimensional: Information that the brain can see in three dimensions is remembered more easily.
*E = Emotional: Information that has an emotional impact on the brain is remembered permanently.
*F = Feeling: Information that can be felt or experienced is remembered more firmly by the brain.
*G = Game: Information received in the form of a game is remembered more easily and quickly.
*H = Happy: Information remembered with happiness is recalled better.
*I = Interest: Information linked to your interests is easily remembered by the brain.
*J = Joke (Humour): Information that makes you laugh or is humorous is quickly remembered by the brain.
*K = Knowledge: Having a thorough understanding of a subject makes it easier to remember related information.
*L = Logical: Logical information is remembered more permanently.
*M = Mnemonic: Using mnemonic devices can strengthen and firmly establish any information.
*N = Neurobics: Just like aerobics is exercise for the body, neurobics is exercise for the brain, using imagination to keep the brain healthy and powerful.
O = Observation: Good observation skills solidify information.
P = Picture: Information presented in the form of pictures is remembered faster and stronger.
*Q = Question: Asking questions keeps the brain active and helps in converting information into memory.
*R = Ridiculous: Strange thoughts and uniqueness make information easy to remember.
*T = Tuning: The brain quickly remembers a tune.
*U = Used To: Information that is used regularly is remembered.
*V = Visualization: Information that can be visualized in the brain forms a permanent memory.
*W = Water: Drinking plenty of water improves memory.
*X = Xerox: The brain easily remembers similar-sounding words.
Y = Yes: Saying "yes" to yourself with full positivity helps in quick recall.
Z = Zeal: Doing any task with zeal ensures that the information is firmly remembered.

By using these features, information can be transformed into permanent memories.

Imaginary Journey, Real Experience: The Seven Wonders Experiment

How do you travel from one city to another today? By bus, car, train, or on foot? If you cover a distance of one hundred kilometres by car, it will take two hours. And if you walk, it will take two days. The distance remains the same, but how you travel affects the time it takes. Five hundred years ago, people travelled on foot, but today we use buses, trains, cars, and airplanes. This has significantly reduced travel time, thanks to science. Science reduces the time, effort, and fatigue required for tasks, making them easier and faster. However, if studying requires more time and effort to achieve good grades, it

ISSN:1624-1940
DOI 10.6084/m9.figshare.2632574
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indicates that while we study science, we do not apply it to our studies. Just as there are different methods for traveling a certain distance—walking, cycling, taking a bus, train, car, or airplane—each method affects the time and speed of travel differently. Similarly, the time and effort required for studying and memorizing can vary depending on the methods used. Adopting efficient methods can change and save the time and effort needed for studying.

Imaginary Journey, Real Experience: The Seven Wonders Experiment

When we travel with family or friends, we tend to remember almost everything about the trip because the experience is real. Similarly, we can create an imaginary journey and remember it as if it were a real experience. You may have heard or read about the New Seven Wonders of the World. But do you remember all seven in order? Let's memorize them today. The New Seven Wonders are: Christ the Redeemer in Brazil, the Great Wall of China, Machu Picchu in Peru, Petra in Jordan, Chechen Itza in Mexico, the Colosseum in Rome, and the Taj Mahal in India. One way to remember them is through repetition—repeating the information over and over. However, let's try a different method by imagining a journey where you visit these wonders with your family, creating a memorable experience. Imagine you first travel to Brazil, where you see the enormous statue of Christ the Redeemer. Behind this statue, there's a massive wall stretching all the way to China. You climb this wall and see a match taking place on the other side, where players are levelling the pitch with their feet. Suddenly, someone spills petrol, and a huge fire breaks out. You quickly run to a nearby restaurant and have a Mexican chicken pizza, which turns out to be bad, making you feel sick. You rush to brush your teeth with Colgate, and as you step out of the room, you see the Taj Mahal in front of you. Finally, you return home.

Now, these wonders are firmly situated in your mind as a real experience through this imaginary journey. Don't believe it? Ask yourself where you first went on this journey. Your mind will show you Brazil, where you saw Christ the Redeemer. What was behind it? You'll remember the Great Wall of China. And on the other side of the wall, you'll see the match pitch, representing Machu Picchu. This way, you'll recall all of them. This method allows you to create a vivid, memorable association with each wonder, making it easier to remember them in order.

Brain Science and the Phonics Method

Everyone knows the importance of memorization for exams. But do you know that the time required to remember information varies according to the type of information and subject matter? Have you ever noticed how much time it actually takes to memorize something? Often, we don't know how much time is needed to fully and thoroughly memorize a particular subject or chapter. In fact, the time required for memorization depends on the type of subject or information.

The easiest things to remember are those that can be seen, which form a three-dimensional image, like the objects shown to young children in play school, which they learn by observing. More difficult than this is remembering words. Even more challenging is remembering rhyming content like poems. Harder than that is remembering groups of sentences or theory. The most difficult of all is remembering numbers because they are abstract.

In reality, the brain finds it easier and quicker to remember information that has both a literal meaning and a visual cue. For example, if I say "aeroplane," an image of an aeroplane appears in your mind, along with the word and its meaning. When both a word and an image accompany information, these are auxiliary cues that aid in memorization. These cues make the subject simpler. However, if I say "thirty-two," the number 32 will appear in your mind, but no specific image will come to mind. Since numerical information lacks an accompanying visual cue, numerical information can be confusing. And they are memorized only after repeated practice over time. Let's consider how to give numerical

ISSN:1624-1940
DOI 10.6084/m9.figshare.2632574
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information a visual form. If I ask you if you remember your father's first car, you will likely visualize the car. But if I ask you if you remember its license plate number, many people often get confused. When asked which bank you have an account with, your mind will visualize the bank, but you may not remember the account number. Friends' names, addresses, and faces are often remembered, but their phone or mobile numbers need to be noted down in a phone or diary. In studies, square roots, cube roots, mathematical formulas, historical dates, and multiplication tables are often forgotten despite repeated practice. The reason is that the brain takes longer to memorize numerical information and forgets it quickly. Remembering numbers is difficult because they are abstract. In the brain's perspective, information that also presents a visual cue along with its literal meaning is easier and quicker to remember. Numbers lack these visual aids. So today, let's learn how to convert numbers into visual forms.

Brain Science and the Phonics Method

Consider the digits from zero to nine, which form all numbers. Let's convert them into sounds represented by English letters. Assign 'S' to zero, 'T' to one, 'N' to two, 'M' to three, 'R' to four, 'L' to five, 'J' to six, 'K' to seven, 'F' to eight, and 'P' to nine. Note that all the letters assigned to these digits are consonants, not vowels. We will use vowels to create words and images from these letters. Now, let's take an example. To visualize the number twenty-five (2 and 5), use the letters corresponding to these digits: N for two and L for five. By placing a vowel between N and L, we can form a word.
In this way, you can create your own phonetic codes for each number and link these images to the main information for easier recall. For instance, to remember Article 19 of the Constitution, which pertains to "freedom of speech," you can use the number nineteen (1 and 9). The phonetic code for 1 is T and for 9 is P. By adding a vowel, you can form the word "tap" . Imagine holding a tap like a microphone and saying whatever you want, symbolizing freedom of speech. This way, it will be easier to remember. This method allows numerical information to be transformed into simple visual images.

Creative Imagination

Have you ever seen a dog talking on a mobile phone? Or a goat going to a beauty parlour, or a donkey taking math tuition? Reading this might make you laugh, and it probably seems strange. You might be wondering what kind of things Mr. Vinod is talking about today. But the point to understand here is that all these activities happen around us all the time. We humans do these things regularly, and it doesn’t surprise us because, for us, it's normal. However, animals or other creatures can't do these things. But you must know that millions of years ago, these animals and we were the same. We lived similar lives, in forests and caves. The primary task for everyone was finding food, and after obtaining food, returning to their place. But we humans have changed. We have created so much, invented so much, and changed the entire map of the world. From forests to cities and from caves to luxurious buildings, humans have made this journey using the power of their minds. But do you know which power of the brain enables a person to do this? It is creative imagination.

Nature has endowed every creature with some unique physical characteristic that, in some way, is more distinct and powerful than the physical strength given to humans. For example, a lion has sharp teeth and claws, an elephant has immense strength, a bird can fly, and a fish can swim underwater. Animals have these physical traits, whereas humans do not possess such physical features. Despite this, humans dominate the world on a much larger scale than these animals and even keep animals under their control. The reason for this is the greatest trait of humans: their brain. This trait makes humans powerful beings. But do you know what gives the brain this power? It is creative imagination. That means the human brain can imagine with creativity. In other words, a person can imagine what they have not seen and

ISSN:1624-1940
DOI 10.6084/m9.figshare.2632574
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think about creating it. It is through this power that so many inventions and changes have occurred. Science is also a form of creative imagination. Any change, discovery, or invention is initially just an imagination, and the creativity of the mind gives it form and possibility. An amazing fact is that imagination is not influenced by logic. Imagination comes first, and logic provides the foundation later. For example, imagine there is a lion sitting on your sofa eating chocolate. As soon as you start imagining it, you can see this scene in your mind—a lion eating chocolate appears vividly. Logically, we know that lions do not eat chocolate. Let's take another example: do not think about a red apple. See, despite my instruction, the image of a red apple appeared in your mind. This means that imagination is faster and unaffected by logic. Albert Einstein also said that a person's imagination is the most powerful thing in the world. We just need to learn how to use this power in our studies and in any task, we undertake in life. This is what makes the impossible possible.

Visualized Association

Memory in the brain is the combination of two pieces of information; this is what we call association. If we use this association methodically, we can remember everything we want to remember. The importance of remembering anything lies in being able to recall it at the right time. To recall any information, a question is needed. Notice that to remember anything stored in your memory, we ask a related question. In exams, questions are asked, which include a part of any information, and the related information is written in the answers. The ability to remember well and completely depends on how the information is combined. If we can somehow link pieces of information so that one piece helps recall the other, we will be able to remember most things.

Eight Traits of Good and Wise Parents

Trust - Have faith in your child's abilities and earn their trust. Every child has the potential to succeed; their methods might just differ. Your bond with your child should be so strong that they feel comfortable sharing every aspect of their life with you without hiding anything. This trust is built through actions, not just words.

Be a Good Listener - Listen to your child attentively and completely. Understand them emotionally and analytically before drawing conclusions. If they make a mistake, allow them to explain their side before scolding or blaming them.

3- Spend Time with Your Children - In today's busy world, many parents struggle to find time for their children, even though they know their child is the most precious thing in their lives. Often, parents provide for their child's daily needs and get them into good schools but fail to spend quality time with them. Remember, along with fulfilling their needs, your personal presence and time are fundamental necessities for your child. Spend time with them, listen to them, and talk with them.

4- Motivate Your Children - Encourage your child to engage in any task, whether it is studying or any other work, through motivation rather than fear or pressure. When motivated, the mind connects with the task, whereas pressure makes it avoid the task. Focus on the benefits of successfully completing the work instead of the consequences of not doing it, and inspire them accordingly.

5-Don't Teach Just for Grades - Don't pressurize your child to study solely for the sake of grades and exams. Instead, motivate them to study with the understanding that the true purpose of education is the holistic development of their personality. Recognize their strengths related to their studies and understand their challenges.

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6-Provide Healthy and Nutritious Food - Avoid letting your children develop the habit of eating anything from the market. Remember, a healthy body and a healthy mind are both essential for children. Instead of packaged and fast food, prepare and serve delicious and nutritious meals at home.

7-Be Their Friend- Many things in a child's life can influence them, both positively and negatively. Always be a true and good friend to understand and guide your child's life.

8-Encourage Their Strengths- Identify and encourage your child's unique strengths. If they sing well, excel in a sport, or have any other special talent, do not overlook it. Instead, encourage them wholeheartedly. Remember, it is these very strengths that make us know figures like Sachin Tendulkar, Amitabh Bachchan, A.P.J. Abdul Kalam, and Sania Mirza. Praise what your child is good at, and as a friend, help them overcome any weaknesses. Understand what your child's goals in life might be, or in which area they want to succeed, rather than imposing your own goals on them.

10 Habits that can make you a successful student:

1. Positive Thinking - Always think about how to be successful and stay positive. No matter what the subject or exam is, don't be afraid, nor stressed. Instead, tell yourself that your mind and determination can overcome anything. Never think it's difficult, say it's easy, I can definitely do it. Don't stress, see problems not as problems but as puzzles or challenges. Solving puzzles or challenges is enjoyable. If you have this kind of thinking, life's problems will be solved, and you will find joy in solving them.

2- Time Management - Organize and manage your activities and tasks systematically. Divide your time into segments and plan your daily routine accordingly. Divide time into urgent and important categories and prioritize your tasks accordingly. Keep tasks that are important but not urgent on a secondary level, and give priority to tasks that are urgent. For example, if your electricity bill has arrived at home, and the due date is fifteen days away, it is important but not urgent. However, on the day of the due date, the task becomes not only important but also urgent.

3. Effective Study Habits - Study not just to score marks, but also to learn and acquire knowledge. Develop an emotional connection with the subjects. Generate interest in them. Learn not only as a subject but also as a skill for life. Just as we use Facebook, the internet, and WhatsApp not just to score marks but for knowledge and out of interest, similarly, we read newspapers not just to score marks but to stay informed and updated with current information. Similarly, with our subjects, focus on understanding the essence of the topic along with its relevance in life.

4. Study with intervals - Just as we cannot eat all our meals at once throughout the day and need to eat at different intervals, similarly, instead of continuous studying, take a break of ten to fifteen minutes after every hour of study. Relax. This helps in consolidation of learning and gives the brain a replenishment of energy.

5 - Good Sleep - Good and sufficient sleep keeps your mind organized and energetic. Get a full eight hours of sleep; don't stay awake at night to study. Instead, manage your syllabus time according to your schedule and study during the day. Only sleep at night.

6 - Be Innovative - Always think of doing something new, keep acquiring new knowledge about a subject. Stay Curious - Keep being inquisitive.

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7- Good Nutrition Always eat good and healthy food. Avoid eating too much fast food and food from the market. Consume salads, fruits, and fruit juices. Drink plenty of water, as it keeps your body and mind fresh and healthy.

8-- Focus and Exercise - Students should keep both their mind and body healthy. They should engage in regular exercise and meditation. This helps in keeping the mind and body healthy, energetic, and powerful. It enhances concentration.

9- Organize for Exams - Ensure timely preparation of important questions and topics. Where there is confusion, seek help from teachers to understand them again. Set goals for how much syllabus needs to be covered and how many marks need to be obtained.

10- Focus on One Thing at a Time - Instead of studying everything at once, focus on one question or subject at a time. This is the curriculum. Think about which questions will come and whether they will be correct.

The "KASH" Formula - The Sure Formula for Success - K, A, S, and H.
In any exam, whether it's studying or life, a word (in hindi language) often comes to mind: "Kash!! Kash!! Kash!!" This "Kash"(in hindi language) symbolizes regret. If we look at this regret from another perspective today, we'll never have to say "Kash" in life again. This "Kash" is made up of four letters in the English language - K, A, S, and H. K stands for Knowledge, A stands for Attitude, S stands for Skills, and H stands for Habit. The "KASH" formula can make you a successful student.

K - Knowledge: Knowledge is the first necessity for any task. Recognition of any successful individual in the world is based on their knowledge in their field of work.
Any desire is not fulfilled just by wishing; one must acquire complete knowledge about it. For example, if someone is sick and needs an operation. No matter how positively we think that we need to fix him, we need to save him, we cannot perform his operation ourselves because we don't know how to do it. If we do it without knowledge, the patient won't get better. Your intentions are good - you want to save him. But your knowledge is not sufficient. So, having accurate and adequate knowledge is the foremost and fundamental requirement for success.
A - Attitude or behaviour, human behaviour or perspective is its main component, which determines its success and failure. In reality, your reactions are determined by the circumstances. Negative thinking or a negative attitude can never lead to positive or successful outcomes. On the other hand, a positive attitude, i.e., a positive behaviour, not only leads to success naturally but can also make the impossible possible. Attitude shapes your dreams and transforms thoughts into resolutions. It distinguishes between desire and determination. There's a significant difference between desire and determination; desire can be traded, alternatives can be considered, but determination cannot be traded. It has no room for alternatives. And whenever pressure mounts, desire weakens in life, and determination becomes stronger. Where many ordinary players leave the field under pressure, the winner makes history and becomes a world champion. Strong resolve and positive attitude make this possible. Pressure and stress also depend on your attitude in studies. If you prepare for exams with a positive mindset and determination to excel in any situation, no one can stop you from succeeding in them.

S - Skill or Expertise, Knowledge is necessary to do any work. But to reach the highest position in that work and to establish recognition, it is very important to be skilled in it. Skill comes from continuous practice of knowledge. Along with that, firm determination gives you the ability to face and overcome

ISSN:1624-1940
DOI 10.6084/m9.figshare.2632574
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challenges. When I also decided to learn cooking like my mother, after acquiring the complete knowledge of cooking on the first day, with the belief that I too can now cook well, I went to the kitchen, tried to cook, and then I experienced that despite having the knowledge of cooking,
I couldn't cook as well as my mother.
It took me a long time, yet the food didn't turn out well, whereas my mother prepares the entire household meal in just a short while. Hers is also delicious. The reason for this was that the knowledge was equal in both cases, but my mother had more skill. When learning to drive, one gains knowledge of its technical aspects on the very first day. However, the skill of driving comes with continuous practice. Only then can one easily drive the car correctly. This applies to the field as well. In studies too, along with knowledge, skill shows the path to success.
"H" - Habit or addiction, Habit helps in transforming knowledge into skill. Unsuccessful people don't like to work hard. Their mind also needs relaxation. But successful people, even if they don't like hard work and fatigue, still do it. And by doing it consistently, it becomes their habit. Those who score low marks do not like studying and prefer playing more. Similarly, students who score well in exams also prefer playing and relaxing more than studying. However, due to the commitment to scoring well, they make studying hard work their habit. Whether a habit is good or bad, it forms by consistently doing that task. Even if laziness comes in going for a morning walk, going for a walk consistently makes it a habit. Once it becomes a habit, doing that task feels easy. To form a habit, one should do that task continuously for twenty-one days, then it becomes a habit in the mind, and skill in that work develops. Yes, in these twenty-one days, one day should not be missed from that task. If there are topics or questions in studies that seem difficult and bother you, if you do them every day for twenty-one days, they will start to seem easy.

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