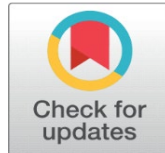
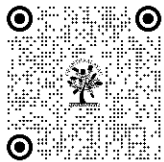


VISUALIZATION - AN AMAZING PROCESS TO REMEMBER PERMANENTLY

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ABSTRACT

Visualization is a strong support to have a powerful and permanent memory, 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. In education memorization can also be called as 4th dimension of education. As a car has four wheels, education has four dimensions: reading, writing, understanding, and memorizing. We often excel at reading, writing, and understanding, but we struggle with memorizing effectively. Consequently, we never forget how to read, write, and understand, but we often forget what we've memorized. This is why we need to keep repeating information to retain it, making memorization the most time-consuming part of studying. The traditional method of repetition or rote learning is outdated. Fundamentally, the brain registers information in four ways, converting it into memory. This process is called memorization.

Keywords: Human Brain, Dimensions of Education Visualization, Imaginamtion Brain Science, Mnemonics, Memory Techniques, Imagination, Visualization, Association, Recollection, Creativity, Positivity, Learning Techniques, Exam Planning, Revision, Recollection, Retention, Learning, Habits

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1. INTRODUCTION

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.

The association of information is called memory, and the mutual association of memories creates permanent memory. There are two types of memory: temporary and permanent. Permanent memory is something you always remember and can recall instantly. We constantly receive information in various forms, but most of it becomes temporary memory. To make a memory permanent, we need to understand the process of memorization which has three steps as Registration of information through senses, then retention and finally recollection or retrieval.

2. 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.

3. 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.

4. 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 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.

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6. 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 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.

7. 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 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.

8. 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.

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.

9. 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 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.

10. IMAGINATIVE ABBREVIATION METHOD

Have you ever noticed that people don't praise you for remembering something, but for recalling it? In other words, nobody cares about how long it took you to memorize something; they care about how quickly you can recall it. Even in exams, marks are given for recall, not for memorization. Memorizing is the input, and recalling is the output, and the world values the output. But it's true that recalling depends on memorizing—how well you memorize something will determine how accurately you can recall it. In other words, a precise output relies on precise input.

Sometimes, we need to remember abbreviations, and it can be confusing to recall what each letter stands for. If we assign imaginative meanings to the letters in the abbreviation, we can remember them without much repetition and confusion. **Imaginative Abbreviation Method** The imaginative abbreviation method involves creating a short form of a long name or a name with multiple words by combining the first letters of the words to form an abbreviation. This abbreviation is then remembered as a symbolic name. For example, the full form of "S.A.I" is "Sports Authority of India," and "D.I.A"

stands for "Defence Intelligence Agency," commonly known as D.I.A. "P.O.T.A" is short for "Prevention of Terrorism Act." Instead of repeatedly memorizing such information, it can be remembered using the imaginative abbreviation method. Here, we create an image based on the abbreviation and connect it with the main idea of the full form. Let's try it out:

1. S.A.I (Sports Authority of India) - We can create an imaginative image for "SAI" by thinking of Sai Baba's temple. Now, connect this with the main idea of sports by imagining people praying at Sai Baba's temple for winning in sports.
2. D.I.A (Defence Intelligence Agency) For "DIA," we can imagine a "Diya" (lamp). Visualize defence personnel holding a lamp, representing the Defence Intelligence Agency.
3. P.O.T.A (Prevention of Terrorism Act) For "POTA," imagine a "pot" (container). Picture terrorists holding pots instead of weapons. We can use imaginative pictures to remember abbreviations effectively. For example:

W.C.A.R (WORLD CONFERENCE AGAINST RACISM)

- "W" can be visualized as "We" and "CAR" can be seen as an actual car. Imagine all of us sitting in a car heading to a conference to eliminate racism. This way, the words turn into images, and by connecting them, they are remembered as a visual scene.

This imaginative method turns abstract abbreviations into memorable visual stories, making them easier to recall.

11. NAME, FACE, PERSONALITY ASSOCIATION

Have you ever noticed that when you ask someone their name and they tell you, you often don't remember their name after the conversation? You end up asking again, "What was your name?" Sometimes, you save a contact number with a name in your phone, but when you need it, you can't find it because you can't remember the name you saved it under. Often, we find ourselves saying, "What was the name of that person we met at the wedding?" and we can't recall it. This happens with the names of office officials, plumbers, electricians, bankers, teachers, and others we frequently deal with. There are many people we frequently interact with, yet often we can't recall their names when needed. A hallmark of a good personality is remembering names. When you address someone by their name, it leaves a good impression. Let's understand why names are usually forgotten and how to remember them better.

Name, Face, Personality Association

When we first meet someone, it's normal to ask their name and, nowadays, to save their name and number in our mobile phones. Yet, we frequently forget the names. Why does this happen? Why do we sometimes fail to remember who we met?

Even with people we interact with regularly, their names might slip our minds at crucial moments. Remembering names is essential for making a positive impression. Addressing people by their names shows attentiveness and respect. Here's why names are often forgotten and how you can remember them effectively.

We often say, "Your face looks familiar, but I can't remember your name." You've probably never heard anyone say, "I remember your name, but I can't recall your face." Saying that would sound quite funny. The point here is that our brain remembers faces but often forgets names. The reason is that we see faces and hear names. Generally, we retain two types of memory: visual (seen) and auditory (heard). The strongest type of memory is visual, while auditory memory is relatively weaker. A face is a visual memory, and a name is an auditory memory. If we can associate an auditory memory with a visual image and connect it to a person's face or some characteristic, it greatly enhances the likelihood of remembering the name. Before delving into how to do this, let's discuss some common mistakes. When someone tells us their name, we often hear it as a formality, meaning we hear it with our ears but don't pay attention. Consequently, we keep asking for their name repeatedly. From now on, when you ask someone their name or they tell you, repeat it back immediately. For example, if someone says, "My name is Rajneesh," respond with, "Hello, Rajneesh." Use their name six or seven times during the conversation, and conclude by addressing them by name: "Rajneesh, what's your phone number?" This practice signals to your brain that the name is important, and it will retain it better.

Another method is associating the name with a face and personality. Create an image for the name and link it to a distinctive feature of the person's face, profession, or personality. For instance, if someone's name is Rajkumar and they have a big beard, imagine film actor Rajkumar holding this person's beard. The next time you see this person, noticing their beard will remind you of the funny image of Rajkumar holding it, helping you recall that the person's name is Rajkumar. It might sound strange, but it's effective. Try it out and see for yourself.

12. LOGICAL MEMORY

If we classify studying, it mainly falls into two categories: logic (logical principles) and facts. Logic involves content based on principles that need to be understood first, while facts require direct memorization. In logic, understanding is crucial,

whereas in facts, memorization is key. The primary difference between logic and facts is that logical content allows the brain to create a platform memory.

Platform memory refers to a designated place in the brain for storing information, much like how we have logical places for items in our homes. For example, clothes go in the closet, food in the refrigerator, books on the bookshelf, and utensils in the kitchen. These are logical platforms for storing these items, so we look for them in these respective places. Similarly, when studying logical content, the brain creates a platform memory and connects new information to this existing memory.

For instance, in mathematics, you need to fully understand the content. Mathematics is a subject that requires comprehension. Once you grasp a basic principle, you can solve subsequent problems based on that principle. The same applies to science, where most of the content is logical. For example, understanding why objects fall involves grasping the concept of gravity. Once you understand this rule, it applies to everything.

Understanding logical memory is crucial for effective studying. Study materials can be divided into two main categories: logical principles (logic) and factual information (facts). Logical content involves principles that must be understood, while facts require straightforward memorization.

Logical subjects rely on understanding. Once a foundational principle is understood, it can be applied to solve various problems. For example, in mathematics, understanding that two plus two equals four helps in understanding that two plus three equals five. You don't need to memorize each individual sum because you understand the logic of addition.

In contrast, facts do not rely on logic. For instance, knowing that the capital of India is New Delhi does not help in determining the capital of Australia, which also needs to be memorized. Another difference between logic and facts is the time required to understand and memorize them. Logical content takes longer to understand initially, but once understood, it takes less time to remember. On the other hand, factual content takes less time to understand but more time to memorize.

To differentiate between logical and factual content, consider the nature of the questions involved. Questions that ask "who," "where," "when," and "what" are factual, while questions that ask "why" and "how" are logical. The advantage of logic is that once you understand the main argument, you can derive answers to similar questions using the same logic. For example, in mathematics, once you understand the logic that two plus two equals four, you can easily understand how to add other numbers without having to memorize each sum individually. In contrast, factual information such as the capitals of countries must be memorized individually because there is no underlying logic connecting them. In summary, logical memory helps in understanding and retaining concepts, reducing the need for repetitive study. Once you grasp the fundamental logic, it becomes easier to apply it to various problems, making studying more efficient.

Logical Memory

In logical memory, once you fully understand a particular example, it becomes a foundation on which you can solve other examples based on the same principle.

13. MEMORIZATION - THE FOURTH DIMENSION OF LEARNING

The vehicle of education runs on four wheels: reading, writing, understanding, and memorizing. We often excel at reading, writing, and understanding, but we struggle with memorizing effectively. Consequently, we never forget how to read, write, and understand, but we often forget what we've memorized. This is why we need to keep repeating information to retain it, making memorization the most time-consuming part of studying. The traditional method of repetition or rote learning is outdated. Fundamentally, the brain registers information in four ways, converting it into memory. This process is called memorization

MEMORIZATION

The brain registers information and converts it into memory in four ways:

***Emotional Connection*:** Information that we have an emotional connection with

So, our brain retains information with an emotional connection. For example, we might not remember everyone's phone numbers, but we do remember the numbers of our close friends, life partners, or parents because of our emotional connection with them. This emotional bond leads our brain to memorize these details, and we rarely forget them.

***Logical Information*:** The brain retains information that is logical, has reasoning, or is based on principles. Once we understand these logically, they stay with us without needing frequent repetition. For instance, mathematics requires logical understanding. Once we grasp it fully, we don't need to keep revising it. Addition and subtraction, which we learned in the early grades, stay with us forever, even though we don't practice them regularly anymore.

Repetition: This is the most traditional method. It involves repeating information multiple times to remember it, and the brain registers it through frequency, creating memory. However, it is also the weakest method because even if information is memorized through repetition, the brain may forget it after some time, necessitating constant review for it to stay remembered.

Repetition takes the most time to remember, and once you stop repeating, you start forgetting. That's why we don't retain the entire curriculum from our early school years, even if we scored well.

***Visual Information*:** This type of information is powerful and forms our most dominant memory. The brain remembers best by seeing and retains it for the longest time. For example, we often remember movies because we watch them. Even after watching a movie once, we can recall its story and scenes. By using these four methods, the brain turns information into memory. The coordination of these methods is used in mnemonics.

The most important task of our brain is to store information correctly and retrieve it when needed, which we call recollection. Receiving information is known as memorization, storing it in the brain is called retention, and recalling it is known as recollection. While we memorize everything, not everything comes to mind easily because recollection depends on where and how the information is stored in the brain. To store information properly, we need association. Today, we will learn what to do for good retention.

CONFLICT OF INTERESTS

None

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None

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