**"LEARNING HOW TO LEARN" – TRAINING MATERIALS**

Effective learning is the ability to navigate through a maze of information, to absorb it, store and reproduce information that is needed at a given moment **.** Research shows that a purely academic form of learning responds only to the needs of 30% of people, the remaining 70% prefer other learning styles ( *Dryden, Vos , 2000* ).

**TAKE CARE OF THE BRAIN**

1. Drink water - the brain needs water to process information.

2. Take breaks regularly to change body position. The brain needs oxygenated blood to work. Getting up from a chair or changing position releases an additional 20%.

3. Review the material that you need to assimilate. This will allow you to create connections and associations, which will give the brain time to familiarize themselves with the general outline of the material and gather everything that he knows about the topic. This can be compared to viewing the image before placing the puzzle.

4. Divide extensive topics into smaller parts.

5. Diversify the way you provide and absorb information.

6. Breaks! - remember about them. Do not interrupt work that is going very well, but in normal situations, regular, small breaks, every 20-30 minutes will keep you engaged.

7. Use humour. There is evidence that when we laugh, the brain produces chemicals called endorphins that help to relax.

**WHY WE FORGET?**

**Exercise1)**

- Why was the information not provided exactly?

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- What content did most of the participants note?

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- What was the difficulty in acquiring information?

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- What made remembering easier?

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- What would they do differently now? …………………………………………………………………………………………………………

- What distracts them and what allows them to focus? …………………………………………………………………………………………………………

**CONCLUSIONS**:

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Some information is removed by the mind in the process of natural selection.
**Memory has limited storage options.**

**WHY WE FORGET?**

• **Lack of focus** , e.g. when we do two things simultaneously and move our attention from one to the other. (E.g. we go to the room and do not remember why we went. This is because the attention was directed to our thoughts or to another stimulus.)

• **Lack of involvement** in permanent coding of information (e.g. knowledge preserved only for a test).

• **Lack of support for memory**, lack of proper selection of information and associations means that we do not build "additional bridges" after which the necessary information could return to our consciousness from the memory store.

• **Stress and depression reduce the effectiveness of remembering**, attention is directed to the emotions and reactions of our body.

• **No repetitions**, which means we don't stimulate networks of neurons encoding given information many times.

**"ATTENTION" IN THE PROCESS OF MAKING KNOWLEDGE**

• Remember that not everything that is noticed is remembered.

• Conscious attention is directed and results from the desire to run memorization processes.

• Attention is only activated when it appears with the conscious intention of remembering.

**CONDITIONS FOR EFFECTIVE ATTENTION**

• Engagement of the senses.

• Maintaining a high level of motivation.

**FACTORS SUPPORTING ATTENTION**

• Interest - triggers attention and arouses emotions.

• Personality - openness and optimism encourage attention.

• Pleasure - what is pleasant increases attention.

• Motivation - the perspective of achieving the goal.

• Vigilance - a state of calm, distant recovery.

• Concentration - eliminates susceptibility to interference.

• Environment - friendly increases attention and allows focus.

**FACTORS HARDDING ATTENTION**

• Fatigue, stress, illness, medication, unhealthy lifestyle.

• Poor interest in the surroundings.

• No effort.

• No plans, no dreams, no curiosity about the world.

• Automation (e.g. closing doors).

**REMEMBER !**

Each repetition is a strengthening of fixation
and a clear signal to the brain that the information is important.

PERFECT SCHEDULE FOR MAKING REPETITIONS
I: 15 minutes - on the same day
II: 10 minutes - the next day
III: 5 minutes - after 24 hours
Next replays: 2-3 minutes - for 3-4 consecutive days

**Your factors supporting attenton**

* A
* K
* K
* K
* k

**Your factors hardding attention**

* A
* K
* K
* K
* k

**What can I do to give students a better environment to focus on:**:

* K
* K
* K
* k

**TECHNIQUES FOR EFFECTIVE LEARNING AND REMEMBERING**

MEMORY HOOKS

One of the quick memorization method is to use key words (hooks). These are words with which a concept or information can be associated and thus easier to remember. The association of the "hook" with the remembered concept should be in the form of an interesting, colourful picture or story. We remember positive and nice things best, so associations should also be based on this. Below are some features that should be considered when applying the word hooks.

Everyone can create their own set of memory hooks, but they should be easy to remember. Here are 2 different examples:

• hooks - rhymes associated with the sound of consecutive numbers

1– bun 2 – through 3 – tree

4 – flour 5 – life 6 – mix

7 – heaven 8 – mate 9 – fine

10- man 0 - xero

* hooks - 0 from 1 to 10 pictures associated with the shape of the devilish numbers

1 – candle  2 – swan  3 – apple  4 – chair  5 – crane  6 – lamb  7 – scythe  8 – snowman  9 – balloon  10 – knight 

ANCHOR

While learning, we come across with many details - to remember the course of the Battle of Grunwald, for example, it will be much easier to remember the course of the battle, which will be firmly anchored in memory by means of imagination. This will enable us to a scheme called SEE (exaggeration and energy senses):

**Senses** - first we use the senses, i.e. we imagine the smell of horses, sweat of soldiers, dust on the face, the sound of sabers reflecting on each other.

**Exaggeration** - the knights of one side can be, for example, much larger than the other, or they can be distinguished by their custom color of armor, they can also mount ridiculously small horses.

**Energy** - to add energy / action to the situation, the battle should live, the sabers collide, the soldiers should run ahead, and those wounded fall off their horses and fall over with a scream.

Giving these features will allow you to remember the term for a long time, because it engages many senses at once.

MISSING LINK

May Ac analogy given three members **a, b, c** , seeking the fourth **d.**

Examples:

Lemon - sour dreams / sugar -...? ( sweet )

Bouquet - flower / forest -...? ( tree )

Human - home / dog - ...? ( shack )

Car - wheel / human - ...? ( leg )

Peace - war / speech - ...? ( silence )

Can - opener / safe -...? ( code )

Horse - knight / litter -...? ( witch )

Train - station / elevator - ...? ( floor )

Minute - watch / day -...? ( calendar )

By assigning a term that we want to remember to specific pairs connected by means of an analogy, we create an association that will allow us to remember the word more permanently

On the scent

We have the object, e.g. **glass** . We add to it as many one-word terms as possible: transparent, smooth, scratched, compact, clean, etc. Next, we choose one of these terms - e.g. **transparent,** and "track" other items for which it is appropriate.

So what can be transparent? - glass, nylon bag, crystal, lens, glass, air. By assigning a term to a group, it will help you remember it.

CHAIN ​​METHOD OF REMEMBRANCE

Using your imagination to associate certain things. It often happens that you have to learn difficult terms, listed one after another, often boring to tell. A good way to remember them is to come up with a movie / story that will guide us through these terms in turn. Monotonous exchange sounds different, almost impossible to remember after the first hearing, and a story that contains the given elements step by step and combines them into one coherent whole. History can contain as many fantasies as necessary. This technique is very useful with a large number of words to remember, a cause and effect sequence, or with difficult mathematical, chemical or physical formulas, e.g. (a digit is an image associated with its shape):

* Should we buy 248 cm of carpet? - *" A beautiful white swan swam around a colorful sailboat. A refreshing breeze blew. The bearded skipper measured the time with an old hourglass. He had a soft carpet under his bare feet "*

* Periods in the history of the Earth:

*Quaternary*

*Tertiary*

[Cretaceous Period](https://www.diki.pl/slownik-angielskiego?q=Cretaceous+Period)

*Jura*

*Trias*

*Perm*

*Karbon*

*Devonian*

*Silurian*

*Ordovician*

*Cambrian*

*Precambrian*

1 2    3            4 5     6        7   8   9        0

**There, the sea growing forest will cut off it as will the time**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **0** |
| **D T** | **N** | **M** | **R** | **L L** | **W, F** | **G, K, H** | **J** | **B, P** | **C, S, Z** |

Based on the table above, you can create a picture sentence for each date that will remember the date and the event associated with it . for example :

*Baptism of Poland - 966    ->  PWW   ->  "Poland wild water" (sentence associated with the date)*

**Exercise 2)**

Words:

**bicycle, monkey, ball, socks, cake, playground, trees, battle, towels, bananas**

The story:

"Imagine getting on a **bike** and riding along an alley between trees. See magnificent greenery, feel the smell of trees and mowed grass nearby. You drive until suddenly a **monkey** falls under your wheel, which results in your fall. You get up, approach the monkey and see **a ball** for basketball tattooed on her stomach. You touch this tattoo and it turns out that it is not any tattoo but sticked, smelly (you do not have to imagine it), hairy **socks** . You take them off and throw them away. You didn't notice the oncoming car and hit the socks on the front window of the car. However, when the socks collided with the glass, it covered with some kind of smear. The driver gets out, smells, takes on his finger and then starts licking the entire window and screams joyfully: it tastes like a **cake** !!! After a while, he gets into the car and doesn't mind if he has his entire window blurred. He pulls off the road and enters the green **field** . This is where the tournament was taking place like Harry Potter. **The trees** fought a fierce **battle** covering themselves with " carrots " made of **towels** . You hear the branches break and leaves fall. One of the branches fell near you. You come closer and lift her up. Do you feel how soft it is? You can't resist bringing her closer to your mouth because of intense curiosity in you and you bite a piece of branch. To your amazement, it tastes like **banana,** so you load those branches as much as you can and take them with your bike home"

**CONCLUSIONS**:

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What can it be useful for?

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What makes it easier to remember these words when they are already part of a story?

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What else is important in the memorization process?

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What techniques of fast remembering / learning do you know so far

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Remember that imaginations should be maximally absurd, funny, unusual, great, let there be a huge amount of something. Add vivid images, smells, sounds and flavors there. Very important thing - you must be in this story! Become her hero and feel emotions such as joy, excitement, fear and fascination. The more unusual things there will be, the easier you will remember everything

**Exercise 3)**

- Chosen technique/ method:

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- Planned usage:

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- Chosen technique/ method:

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- Planned usage:

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**Task to focus attention:**

1) Imagine you feel an orange in your hand.

2) Put this orange near the top of your head, leave it there.

3) Close your eyes and focus on this orange, try to feel it, how it touches your head.

4) Open your eyes and still imagine that this orange is with your head .

5) Then, without focusing on the oranges, start doing what you planned.

Subconsciously, your thoughts have been cleaned and focused, and your mind cleared, allowing you to focus more on your next task. The whole technique takes from 10-30 seconds.

There is a very easy way to measure it. By regularly using the technique , your reading pace should increase.

**Bibliography**

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