Helping Adolescents Improve Their Memory

By Albert Schmelzer

Translated by Genie Sakaguchi

Every day at school we provide children with sights, sounds and experiences that help them develop their memory. We teach them facts, names, rules, categories and problem solving to improve their long-term memory. And we help them store memories deliberately in order to improve their short-term memory. We give them assignments and ask them to filter out distractions from their smartphones and iPads in order to decide what is important.

Some children are powerful in visual reconstruction and easily choose the most important parts of their experiences. They compact this information and then add personal details to their memory. Others are more gifted at audible reconstruction. They listen, pick out important information and find what is meaningful to them. Yet others need to run, knit, jump or use any other form of movement to ignite their memory skills.

Types of memory

Experts break down the memorization process by identifying various categories of memory. Visual memory uses the eyes and the mind's eye. Auditory memory reconstructs words, sentences, stories, and memories of spoken language. Sequential memory registers information in order. Episodic memory registers what happens to you. Procedural memory helps remember for example, how to tie your shoes. Automatic memory moves your muscles instinctually.

An active, working memory is often trained in sports, for example, dribbling, batting, catching passes or diving. Children learn to keep things working together when they need them.

Strategies

Professionals teach children how to build relevant memorization strategies. There are many. For example, group strategy helps children collect images in pairs or in categories, such as funny things. Association strategies help them

recall a name, think of other people in the family or the car, etc. To use the active working strategy, children write down much more on paper or underline parts. The bypass strategy teaches children to find a picture to remember the words. And very effective are the physical exercise strategies in which they, for example, raise one foot up and one arm down. Or move their limbs to the left and to the right to build short-term memory.

Good test preparation strategies include questions that help children know that they know enough. The strategies help them learn what material will be covered, what they need to memorize and how much time they need to memorize.

Where the problems lie

When analyzing where children's problems lie, look into memory deficits in short-term memory and in active working memory as well as how well they register procedures and sequences. Are the children able to recall what they learned last year, last week and yesterday? Are the weaknesses in language processing or data processing? Are the children able to apply rules they are taught or may they have deficiencies in reasoning? And often there is anxiety involved when children have continually made mistakes.

Steiner's approach in the learning process

Not surprisingly Rudolf Steiner approached memory in a very different manner. His goal was to give the children something that reaches beyond the initial ideas, feelings, mental images and skills—far into their adult lives. He challenged teachers to give children ideas, feelings, and skills that are not fully formed but rather capable of growth and development. How is this possible?

As he spoke with the first teachers in 1921, he knew from his own experience that recollecting and perceiving are the same activities but in two different directions; perception is directed outward and recollection is directed inward. "When we perceive something, when in the case of children we direct their soul activity to some outer object and develop with them an idea or concept, the activity will certainly be the children's very own; they are preoccupied, are working with the idea or concept. We call this process perception.

"When the children remember something; the same process is involved, but now it is directed inward. Something is happening within the child. The children are working with something in the same way as in the perception of an outer object. These inner processes that continue when the original mental images of perception are no longer directly present are extremely complicated. It is very difficult to describe, in any specific instance, how a mental image prepares to reconnect with the human being in order to emerge as memory—so that the image may be perceived again. This time it is an inner event. But when we

remember, we really perceive inner events in the same way we perceive outer objects."

Where does this take place in the children? According to Steiner the continuing effects of mental images and ideas that later emerge in memory actually take place in our feelings. Our life of feelings—with its joys, pains, pleasures, displeasures, tensions and relaxations—is the actual vehicle for the enduring qualities of ideas and mental images that we can recall at a later stage. Our mental images change into feelings, and it is these feelings that we later perceive and that enable us to remember.[1]

Most teachers think that whatever concepts they teach will descend into the unconscious spheres of the child's soul and remain there until they are brought up by memory. Steiner disagrees. He states that the mental images from a lesson change immediately after the lesson is over and the children no longer think about them. The mental images disappear. The question is: How do we help children develop their capacity to recollect?

Memory helpers

One method is to put feelings into our words when we teach. We bring emotions to the topics we teach and allow the children to experience the emotions. Otherwise we merely present what the children see. We can make them feel happy or sad. We can bring warmth into our lessons. This demands more of the teachers. Our goal is to help the children make an inner connection with the subject by stimulating their feelings. If we touch their feelings while they learn, we help their memory when it is directed inward. Another method Steiner suggests is to interrupt the thought process in the direst of subjects such as geometry or physics and ask a child, "If you were to do this and something unexpectedly were to happen….?"—we add feeling to the lesson. We add tension, expectation, and relaxation that will permeate and benefit the thought process.[2]

A further method is to touch their feelings by addressing the unknown or half-known. He suggested to his first teachers, "If toward the end of a lesson we say, '…and tomorrow we shall do this …'—the children need not know anything about 'this'; their expectation and curiosity will still be aroused. If, for example, I have taught the properties of the square before those of the triangle and I conclude the lesson saying, 'Tomorrow we shall learn about the triangle'—the children do not yet know anything about the triangle, but it is exactly this fact that causes a certain tension, an expectation of what is to come, a looking forward to the next day's lesson. We ought to make use of the unknown or half-known in order to facilitate the children's efforts at fitting the details into totality."[3]

If we use our sense of humor at the right time, it helps our thinking. We evolve tensions and relaxation that act as memory helpers for the children.

A more subtle method is to relate certain aspects of a lesson to other things in life. Steiner gives an example from a physics lesson: "We could, at a given opportunity, spontaneously refer to the weather, to climatic conditions, to phenomena occurring across the globe in a distant country, so that the students realize that there are connections everywhere in the world. They will then experience the feelings that arise when we are led from one phenomenon to another; the tensions and relaxations that result will allow them to identify with the subject, grow together with it, make it their very own possession."[4]

And he challenges teachers to connect what they are teaching to the human being again and again: "What is there to prevent us, when talking about the phenomenon of warmth, from mentioning fever? What is to prevent us, when talking about elastic balls in physics, from mentioning the phenomenon of vomiting, a process similar to the repulsion in elastic balls and vice versa?"[5] By relating topics to the human being, we create a totality. The children learn to combine, in their minds, spirit and soul with the physical world. The ideas interact, they flow into each other.

Physical activities and contemplation

Beyond such memory aids Steiner suggests a balance between instruction that brings the children into physical activity and that which appeals to contemplation and judgment. With physical activities children actively develop skills: eurythmy, music, physical education, even writing or the mechanical processes in arithmetic, to name a few. In the lessons based on contemplation, we ask the children to think about the things we tell them. These aspects are fundamentally different. Steiner said, "It is not generally appreciated how much the teacher of a contemplative subject, such as history, owes to a colleague who is more concerned with skills and aptitude. We really owe a great deal, as teachers of contemplative subjects, to the teachers of handwork, music, and eurythmy. We can go so far as to say that the history teacher actually lives off the music or singing teacher and that, vice versa, the singing and music teachers live off the contemplative elements in history, and so forth."[6]

When we teach contemplative subjects, the children listen, concentrate and use their judgment to understand what is being told. Steiner likens this to a "waking sleeping activity. The separation from the body is not as complete as during sleep, so therefore they do not sleep completely. When they are asleep in their beds, organic activity ascends freely to the brain." Steiner mentions that the same activity also takes place in the contemplative lessons. "And this rising upward of what is amiss in the organism is continually engendered by our insistence on making the children listen, think and contemplate. When, on the other hand, we teach them eurythmy, when we make them sing or play instruments, when we employ them in physical activities, as in handwork and

gymnastics, even when we make them write something—when they are in fact doing things, the organic processes thus stimulated are an intensification of waking activity.

"Even if the effect is not noticed, singing and eurythmy are hygienic, even therapeutic, activities. This cannot be denied. This hygienic, therapeutic activity will perhaps be the healthier the less we approach it in an amateurish medical way, the more we simply do it out of our healthy imaginative conception of life."[7]

Teachers need to develop certain concepts to provide these opportunities for their children. They need to discover how living processes proceed in rhythms. This truth applies not only to music but to everything in life. Children need to move between activities and be led back to themselves. This provides tension and relaxation. Only rhythm maintains life. Therefore if we handle the contemplative subjects correctly, the children produce faculties that will appear in the other subjects. If we give the children imaginative pictures of, say, a Julius Caesar in history lessons, they develop their own imaginative pictures; he comes alive to a certain extent. They "see" him walk, fight or whatever. In this moment the children model images in their mind, not only learning about the persons successes and failures. "And if they then proceeded to a handwork lesson, you may be absolutely sure that they would knit better than they would have without Caesar."[8]

Steiner told his teachers they can be pioneers in education if they make use of the abstractions, the lifeless concepts of their day, and combine them with such living imaginative pictures. They can teach history in such a way that it enlivens anatomy, and anatomy in order to bring life to history. "The function of the liver could, for example, give you an idea for treating the history of the later Egyptian culture, because the nuance, this special nuance in the presentation, the aroma one has to spread across the later stages of the Egyptian history, one acquires during the contemplation on the function of the liver in the human organism. By interweaving subjects in this way, you will meet an educational need by bringing together the so-called physical, which does not as such exist, and the abstract spiritual, which has no meaning as such. Thus you may enter the classroom in such a way that your words carry weight and, at the same time, acquire wings. You will not torture the children with words that merely fly away, nor will you teach them skills and aptitudes that weigh them down."[9]

Imagination and memory

Some children have vivid imagination and others have little imagination. Teachers can learn to deal with these children appropriately. We need to engage these groups of children in the most diverse ways by developing routine. Those with little imagination have difficulty getting the pictures to surface. Steiner suggests, "They should be made to observe better during reading. We should

try to get them to listen better. With children who are slaves to their mental pictures, we should see to it that they become more physically active, mobile; we should make them concentrate more on writing. We should have two groups in the class—giving the children who are poor in imagination the opportunity for cultivating their reading and observation, while for the other group, the children with a vivid imagination, we could especially cultivate painting and writing. Naturally it is a matter of degree because everything is relative."[10]

The school organism

Working with children is the core activity of any school. It is therefore the true basis for all organization at the school. If we notice children struggling in our physics lessons, we can speak with the music teacher and ask him to find ways to help the child. The lessons with physical, artistic or craftsmanship activities appeal differently to the children than the lessons that are contemplative. The school organism comes alive in the moment teachers work together to understand the challenges a child is facing and then provide hygienic opportunities in the various activities. In this way our subjects become integrated. The needs of the children are met.

We also contribute to the school organism when we gradually acquire the necessary educational skills by studying the nature of children and by appealing to their imagination. Steiner declares that "children long for this attention. They need it. And the teacher will greatly benefit from a preoccupation with this aspect of education. A lively interest in human nature is, of course, the condition for succeeding in this endeavor. Such interest can be developed and anthroposophy will provide you with the hints you need. Avoid getting stuck in your own abstractions when you develop your own concepts. You should instead endeavor to understand the human being in regard to its human nature."[11]

The opportunities are endless. A good teacher learns how to mix it up.

Sources

Levine, Dr. Mel, *Educational Care, A System for Helping Children with Learning Problems at Home and in School*, Education Publishing Services, Inc., 1994.

_____. *Keeping a Head in School, Learning Disabilities and Learning Disorders*, Education Publishing Services, Inc., 1994.

Meltzer, Lynn and Betty Solem, *Educational Prescriptions for the Classroom for Students with Learning Problems*, 1988.

Endnotes

All quotations are from Rudolf Steiner, *Education for Adolescents,* GA 302, Stuttgart: Anthroposophic Press, 1996.

1. Lecture One, June 12, 1921, page 18
2. Ibid., page 19
3. Ibid., page 20
4. Ibid., page 24
5. Ibid., page 24
6. Ibid., page 20
7. Ibid., page 21
8. Ibid., page 28
9. Ibid., page 30
10. Lecture Four, June 15, page 66
11. Lecture One, page 29