VALUE ADD

Building blocks of learning

What are cognitive skills? Why are they essential for our functioning?

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Cognitive skills occupy a vital role in an individual's overall development, as they include some of the brain's core functions such as thinking, reading, learning, retaining information, and paying attention and are used to solve problems, remember tasks and make decisions. All this affects the quality of our learning and performance.

One of the most important cognitive skills is attention, which enables us to process the necessary information from our environment. We usually process such information through our senses, stored memories, and other cognitive processes. Lack of attention inhibits and reduces our information processing systems.

Inter-related skills

Memory is another cognitive skill that allows information recall – a student remembers the main points of the previous week's Science class, assuming that he/she paid attention to the information in the first place. Thus, cognitive skills are inter-related. People's long-term memory is only effective if they are paying attention to a subject, and store the information in their short-term memory, also known as working memory.

Other cognitive skills include logic and reasoning, which help us to generate ideas and solve problems by analysing, deducing necessary information and understanding them. This also requires auditory processing, which means our brains blend, analyse, and segment information we have heard or listened to. This cognitive skill helps students to listen and interpret the information received. Strong visual processing skills allow us to formulate designs and make sense of graphs and tables. Processing speed helps us perform tasks quickly and accurately. This also becomes faster with the right understanding of the subject matter.

Why they are essential

Thus, cognitive skills are mental capabilities that are vital for students to learn effectively. They complement each other to function effectively and determine the success of learning outcomes. As most learning challenges are caused by inadequate cognitive skills, it is necessary to question how we are enabling our future leaders to grow and what tools we can provide for their growth.

Schools can start focusing on developing students' cognitive skills through age-appropriate physical activities and brain exercises. Research has established that certain chemicals released during exercise stimulate neural connections and brain growth. In addition, they can try to enhance children's creativity and curiosity by exposing them to art, music, crafts, Sudoku, crosswords, and more. This can significantly influence logic and reasoning skills. Another important activity is interaction with the natural world around them so that they are in tune with it.

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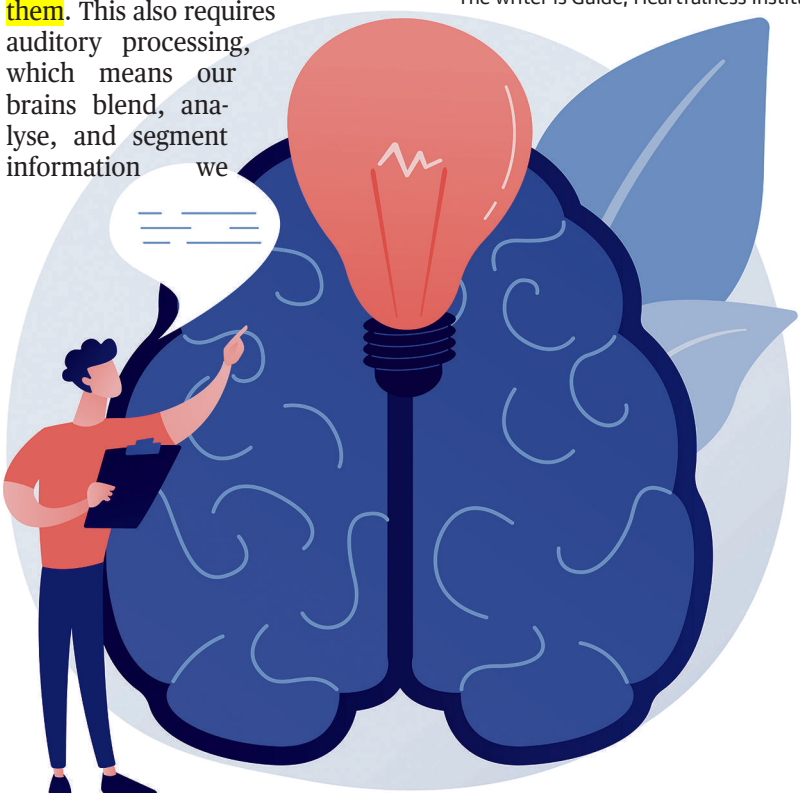

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