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Neuroscience and training: how to improve the learning of new skills

85% of job success depends on having well developed soft skills, while only 15% depend on technical skills.

Companies around the world invest over $ 200 billion in cross-skills training solutions, but programs are not as effective as those implemented for technical skills. Why? The answer to learning neuroscience.

The neuroscience of learning: the "what", the "how" and the "feel"

According to Todd Maddox, a researcher at Amalgam Insights, the brain is based on three different learning systems: cognitive, behavioral and emotional. Each of these systems, which operates in a different part of the brain, is "programmed" to learn a different set of skills: the "What", the "How" and the "Feel".

The cognitive system: "What"

- learns factual knowledge and information
- it is limited to short-term memory and a person's attention span
- it is subject to the curve of oblivion
- it needs repetition to transform short-term memory into long-term memory

The behavioral system: "How"

- apply to situations what the person already knows
- learn through real-time interaction and corrective feedback
- it is more likely to repeat the rewarded behaviors and avoid the punished behaviors in the past
- requires physical repetition and gradual and incremental changes in behavior to develop "muscle memory"

The emotional system:"feel"

- it is able to read a situation and interact with the appropriate set of behaviors
- develops situational awareness, a deep understanding of situations and people
- process situations and adapt behaviors in seconds
- requires role-playing games with real-life scenarios placed in context to develop better learning

Learning knowledge vs. people's skills

The technical know-how is constantly evolving, and the training department must build its own programs to meet business needs at any time. Transversal skills, however, are always necessary, regardless of innovations in processes or technology: active listening, leadership and effective communication are always necessary skills. Other essential cross-cutting skills are respect and empathy. A team can demonstrate well-established hard skills, but without the ability to cooperate and work together, these skills will be in vain in an atmosphere of misunderstanding and frustration.

But how are transversal skills acquired? First of all, through the behavioral system. It is thanks to it that we understand our behaviors and those of others and develop interpersonal skills. However, behavioral behavior is not the only system involved. A leader can know the characteristics of effective communication and have a strong behavioral repertoire, but if he does not have enough emotional intelligence, he will never be able to implement strong and true communication. It is necessary to have awareness and sensitivity. Empathy, putting yourself in another's shoes develops soft skills and this phenomenon occurs in the

amygdala and other limbic structures of the brain.

Although we still don't know in detail how the emotional system works, one thing is clear: the emotional system strongly influences cognitive and behavioral systems. Given that learning hard skills is closely related to learning soft skills, why are soft skills training programs often ineffective?

The pitfalls of microlearning for the development of transversal skills

Microlearning, if combined with tests and repetition over time, it is able to transfer the contents learned from short-term memory to long-term memory. All of this is excellent for involving the cognitive learning system and acquiring technical skills. However, it is not for the development of transversal skills and for raising awareness of the situation, indeed it can even be harmful. In fact, soft skills and situational awareness are developed by behavioral and emotional learning systems and therefore microlearning does not align with their processing characteristics.

The difficulty is that learning behavioral skills requires a less formal approach, focused on forming multiple behaviors in various contexts. To induce long-term behavioral change, people need to be trained to think "on their feet" and this can only happen in situations where there is randomness and uncertainty about the consequences. You can become aware of a situation and decide how to behave in seconds. Microlearning does not allow you to react quickly in various contexts since it focuses on one topic, tests it and then focuses on another.

Building effective training

Transversal skills are the foundations of business success. However, we cannot apply the same approach to learning soft and hard skills; specific learning solutions are needed with which we can:

- evaluate the strengths and improvement of each employee;
- obtain personalized learning paths;
- build a training course based on scenarios;
- combining a variety of learning activities.

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