



The analytical approach of implementing brain based learning strategy in education

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Abstract

To foster students' interest in and ability to study, the Brain-Based Learning Strategy is both novel and practical. In terms of education, it is a notion with several faces and functions. Additionally, educational psychology plays a significant part in brain-based learning, which might serve as a link between neurology and the field of education. Incorporating neuroscience into the classroom in a novel manner is a concept that has emerged in recent years; it may have its roots in scientific progress and seeks to bridge the gap between the two fields. Additionally, brain-based learning may be a relatively new concept that calls for collaboration between neuroscientists and educators to develop effective programs. Neuroscientists, psychologists, scientists, and education experts collaborate to improve classroom practices and degree programs. This new fad in how people learn is rooted in neuroscience, and its goal is to help us all understand the brain's learning process and the factors that promote brain growth.

Keywords: Isometric exercises, pain, geriatrics, arthritis, old age home

Introduction

Accordingly, seeking significance is hardwired into our human DNA. A focus on survival informs this idea. While concurrently scanning and reacting to new stimuli, the brain requires and instinctively registers the familiar. Just what does this imply for the field of education? It implies that there has to be a sense of familiarity and consistency in the training setting. Lessons also need to be engaging, relevant, and provide pupils with plenty of options. It is important to provide children with enough opportunity to reflect on and make sense of their life events, and one thing we must do as educators is to let them have rich experiences. A chance to think things through and see connections is essential. From a neurological perspective, the information we may get from these experiences is among the most valuable resources for future learning.

Principles of brain based learning

1. The brain may be a parallel processor: When processing information, our thoughts, intuitions, biases, and emotions all work in tandem and interact with one another. Appropriate instruction accounts for this. The role of the instructor as a conductor of the learning process is thus mentioned.

2. Emotions are critical to patterning: The idea of the emotive, cognitive, and psychomotor domains is one that I may want to get rid of. For a long time, it has been our belief, even though scientific studies of the brain have shown that this is often not the case. There is no way to separate emotions from logic in the brain. Everything is interconnected. There is an emotional component to everything. Indeed, a large number of neuroscientists now hold the view that emotion is necessary for memory formation. We are driven to discover and create by our emotions. Moods are influenced by them. They provide us immense joy. They are an integral part of our community. It would be our pleasure to learn more about them and welcome them. Even more problematic for me is the fact

that psychology attempts to shed light on the function of emotions by sticking to a very conventional scientific paradigm: dissect it, study its parts, and you'll understand it all. Try to do this while thinking about compassionate or loving ideas. Regarding the feelings, the fact that we are there for each other is very crucial. We thrive in communities. We're friendly and in need of social events. The pupils are behaving in accordance with their social nature when they are more interested in what Johnny is up to tonight or what Mary is wearing than in what the teacher has planned. Collaboration and the development of students' communication skills within school communities as a whole is of the utmost importance. Here, the idea of communal learning works. It is in our nature to excel in these things, thus we should constantly strive to do so.

3. Learning is enhanced by challenge and inhibited by threat: In the classroom, "downshifting" is seen as a kind of vulnerability and danger. There are ramifications for assessment and grading, for student agency and performance goals, and for the role of the educator as controller. Engaged learning is essential for the student. While we don't intentionally set out to test or measure performance, we are curious as to the effects on the human brain in such an environment. One part of the visceral brain is the hippocampus, which is located in the exact middle of your skull, between your ears and the bridge of your nose. You begin to stimulate the maximum potential for connections when you empower and challenge the learner. For this reason, stability is just as important as challenge for the brain. The loss of short-term stability necessitates the replacement of long-term stability. Coming to high school downshifted is an option for many kids who have escaped dangerous environments. The most devastating of all domestic threats is the one that is coupled with desertion in some way. A little downshift in class won't hurt a child from a secure household. No amount of temporary downshifting can help children whose homes are unstable and/or have a pattern of abandonment. The classroom environment is more stable for them.

4. Teach in Small Chunks: In the past, educators assumed that students could absorb and remember vast amounts of information. Two or four data pieces are currently the most likely options, nevertheless. The brain might get into a state of rapid overload. Learning is conceptually complex. Further, it is physical. A lot of the body's physical components, including glucose, are involved in learning and memory. Brain rest is essential. It is impossible for the brain to absorb information if there is too much provided to a learner. This leads to unsuccessful learning. Send out bits of information at regular intervals.

5. Attention Limitations: Unless they're in a flow state, most people's short-term memories aren't big enough to keep much information. People have a hard time maintaining attention for long periods of time. When faced with challenges including mobility, contrast, emotions, or survival, our innate ability to focus and orient comes into play. However, many educators lack the requisite abilities to demonstrate the kind of trained attention that is necessary for effective classroom learning. Better attention and desire to find out are provided by tailoring the information to the learner.

6. Brain seeks and creates considerate: One possible function of the human brain is to both create and seek for meaning. Intentional or not, we strive and attribute significance to numerous ordinary events. Making sense of the world around us is an essential human quality that helps us plan for and cope with the unexpected. In order to impact the substance of a meaning, one must pay closer attention to it if it is significant.

7. Perception influences our experience: Life is a subjective experience for each individual. Because of this subjectivity, experience changes, and perception changes as a result. A person's experience is transformed whenever their perspective on Earth is altered. The brain undergoes change as a result of experience.

8. Emotional-Physical Dependency: A "go" or "no go" signal is used in our neural net signaling process for almost all types of learning. Feelings may tell the brain to go forward or backward. Learning, therefore, is accomplished by means of an elegant series of continual impulses that tell your brain whether or not to store anything. The signaling systems in our bodies allow our emotional and physical states to impact our perception, memory, learning, understanding, and actions.

9. Non-conscious experience runs automatic behaviours: We need to automate a lot of behavior due to the physical body's complexity. Our awareness of them decreases as we automate more tasks. "Undisputed downloads" from our environment or habitual, automatic activities account for the vast majority of human conduct. Opportunities and challenges in learning may arise as a result of this.

Educational implications of brain based learning

Educators' primary setting for using brain-based learning strategies.

Teachers need to have a firm grasp of how the brain works in order to tailor their methods of instruction to students' individual needs and maximize the effectiveness of their

training. Teachers need to be aware that their pupils' emotional states, words, actions, and category structure all have a role in how their brains work and what they really learn. We are well-aware that neuroscience knowledge is very useful in the classroom, but the question remains: how can we use brain-based learning practices? The following are some important points to elucidate the implications of brain-based learning for education.

1. Create a positive emotional environment within the classroom: The success of every classroom depends on the instructors and educators who provide an encouraging and supportive learning environment for their pupils. In order to have a favourable impact on your kids, it's important to control your emotions. When you're in class, try not to get too worked up. Maintaining a low level of stress is critical for keeping pupils engaged and motivated. Your pupils will benefit much in many aspects of their life, not just academics, therefore it's a good idea to train them to cope with stress and other unpleasant emotions.

2. Use Technology within the classroom: High school students are the target audience for this instructional tool. Teachers without expertise in neuro education or psycho-pedagogy may nevertheless study and enhance classroom teaching using this tool. Amass knowledge and conduct research on the neural mechanisms involved in learning and neurodevelopment. Simplify and improve your methods of providing information. Finding cognitive weaknesses that may be associated with learning difficulties and preventing academic failure requires an evaluation of pupils that is scientifically objective. To enhance education and maximize learning, use more effective procedural and didactic tactics.

3. Strengthen emotional learning: Memories and emotions go hand in one. When knowledge makes us feel something, we retain it far better. Making emotional connections when learning is an honest tactic for learning that relies on the brain. Using these links, students may engage in a personalized exercise that helps them build an emotional connection to the material. As an example, you may enhance learning by combining visual and interpretative arts to evoke an emotional reaction.

4. Teach using different styles and from diverse means: Through the use of diverse instructional strategies, engaging activities, and high-quality course materials, we will enhance each student's learning. Different learning styles work well for different pupils. Incorporating visuals, audio, movement, and sound into our brain-based learning approach allows us to arouse all the senses. Students study in a more comprehensive manner, which is advantageous for all types of learners.

5. Maintain most favourable physical environment: We can assist with student care by bringing about a dynamic shift in the classroom setup. Their learning will be enhanced by incorporating change, order, and wonder throughout every lesson. Placing soothing music in the background may assist pupils in focusing, unwinding, and achieving a sense of ease. An environment with plenty of natural light might be ideal for studying. The artificial light produced by fluorescent lights and dim classrooms is not conducive to learning.

6. Repeat information in some ways: Repetition is one of the quickest and most reliable strategies to retain new knowledge for later use. On the other hand, college students might quickly get bored with material that is presented in the same old manner. Using several activities and experiences to review the same subject is an honest method from brain-based learning. They will interact with the information in several ways in this way.

7. Strengthen important learning: In order for children to learn for the long haul and stay focused in class, it is crucial that they understand how useful what they are learning is. Asking, "how can this help me?" may guide students in finding real-world applications for their classroom knowledge. The utilization of real-world activities, such as research, experiment design, metaphor and analogy creation, cause and effect pattern discovery, viewpoint analysis, and artistic activities that drive creative thinking, is another wonderful method from brain-based learning in the classroom.

8. Give feedback: The learning process, and particularly brain-based learning, relies on feedback. The foundational skill for guiding your learning is providing feedback, which includes recognizing what you've done well and how you might improve. Red marks on homework and poor test scores aren't cutting it. You have to be specific about how you mean errors and how you mean the right things. We inspire our pupils and provide them with real-world examples to build upon in this way.

9. Encouragement Makes a Difference: Impact on student learning is tremendously influenced by teachers. Academic performance increases when students have faith in their teachers' belief in their skills and the positive impact they may have on the classroom. When teachers lack faith in their students' abilities, it has the opposite effect: learning drops and failure becomes inevitable. You may thank science for that. Feeling good with their classroom setting causes the release of endorphins in the brain. When you take endorphins, your brain releases feel-good chemicals that activate the frontal lobes, making your training sessions more enjoyable and effective. Maintaining a supportive, encouraging, and safe classroom is the primary responsibility of educators.

10. Brain Plasticity- Use it or Lose It: Neural circuits expand and reorganize in response to usage and activity. Knowledge is stored and kept when neuron-pathways and connections get stronger. It is also easier to retrieve. This process is known as brain plasticity by neuroscientists [2]. Their rote memory pathways will get stronger if pupils repeatedly memorization data. The ability to think critically may be enhanced in college students via the provision of chances for analysis, problem solving, and thought.

11. Mix it Up: Multifaceted Instruction: When education is done with a variety of memory pathways in mind, students learn more and remember more. Experiences that are multidimensional are necessary for brain development. These include tales, scaffolding based on prior knowledge, multimodal input, and reciprocal education. Incorporating technology is commonplace in many classroom activities, from making screencasts with Screen cast-O-Matic to

making mind maps with Mindmeister and video lessons with Video Lessons Creator. Kinesthetic pathways should be engaged with aural and visual methods. To illustrate agility training, for instance, the software Coaches Eye often records footage with slow-motion viewing, sketching tools, and peer sharing.

12. Make it Relevant: Project-Based Learning: Keeping lessons current is another important part of getting a good education. When was the last time you heard someone say, or thought to yourself, "When will I ever get to know this within the future?" The information is more likely to be stored in long-term memory if the training leads to the solution of a real-world, relevant issue. Students hone their executive function abilities via project-based learning, which includes goal-setting, time management, solution-generating, collaboration, revision, and public-speaking performance. Many students use tools like Prize presentations, Google Sites, Powtoon for animated recordings, Toondoo for digital magazines, and iMovie for videos as part of their capstone projects that integrate technology to showcase what they've learned. College students' ability to show material mastery in ways that are engaging, demonstrative, immersive, and relevant might be a key component to their effective learning.

13. Use Time effectively, and Remember to Reflect: There will be much more success if training includes time for reflection. Giving pupils time to readily believe or think about what they have just learned helps them learn it better and retain it longer. Microsoft Word, OneNote, Evernote, Google Docs, or Padlet are some of the many options available to students for keeping a diary, sending out exit slips by email, or writing blog posts. Last but not least, time is of the essence. Any learning experience for a child should alter in subject, location, or person to accommodate their usual 10-to-twenty-minute attention span. To train my memory for different tasks, I have even saved the free online-stopwatch.com on my toolbar.

14. The Brain is social: The general populace is extroverted and sociable. The want to learn by emulating the actions of others is a driving force behind many social drives. People get significance from the information and experiences gained by interacting with others. Teachers may tap into this motivation by designing lessons around student-to-student communication and discussion. Having this kind of activity allowed allows for the collective exploration of ideas, which may be: changed, transformed, confirmed, or rejected.

15. All levels of learning involve the body and therefore the mind: A person's brain goes through a physiological shift whenever they learn anything new or have a significant life event. Neural plasticity describes this process. A part of this physiological shift is the sprouting of tiny strands called dendrites, which eventually join to form larger structures called synapses. Synapses function similarly to intersections at a traffic light, enabling different information highways to merge. A cerebral pathway is supposedly laid down when a person learns anything new, according to some specialists. A stronger neural pathway is formed when a certain pattern of learning or experience is repeated. Learning affects the brain physically as well as psychologically. Giving students

opportunities to engage in both mental and physical activities improves their learning. When students do nothing but sit all day, boredom sets in. Active learning is all that's required of a teacher. While there is no guarantee that repeated practice will lead to flawless performance, it does help pupils solidify their understanding.

16. Checking out meaning is inherent: Members of the public accumulate their experiences. So that kids may make sense of the world by arranging their facts and experiences in comprehensible ways. A private's level of interest may have a significant role in how he sorts through the massive amounts of material at his disposal. To satisfy his curiosity, an individual will feel compelled to learn about anything. While it's true that students don't always care about the topics covered in class, there are methods for educators to pique their interest. Their natural inclination to find significance in events will be aroused, and they will gain more from their educational experience, if they do this.

Conclusion

An emotional reaction is inevitable whenever a private gains knowledge. This indicates that there is an emotional component to every choice. This is thought to be one of the most significant consequences of learning that occurs in the brain. This provides further evidence that the classroom is, in fact, a very emotional setting. It is the responsibility of educators to inspire their pupils to have optimistic outlooks. Teachers create a positive learning atmosphere that is conducive to student success when they treat their pupils with respect. Teachers have the opportunity to create visually appealing and engaging resources that entice children to study. The ongoing examination of the child's brain will reveal profound realities.

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