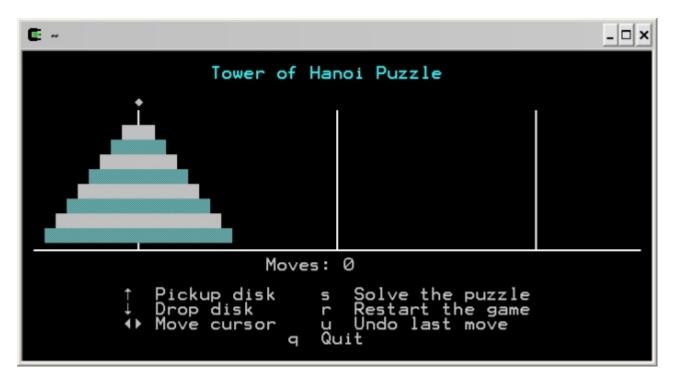
Neuroeducation ^[1]

Submitted by Juan Víctor Concepción Cardona [2] on 2 October 2016 - 1:58pm



[2

ಎಎಎಎಎ



Torres de Hanoi

The brain is a fascinating organ that allows the human being to integrate information and create thoughts or motivations. From a psychobiological perspective learning is defined as the observable change in the behavior of a subject. The learning process occurs daily. Furthermore, we associate the process of learning occurs in the classroom. New academic perspectives propose to establish two-way bridges between neuroscience, psychology and education.

Recent publications indicate that teachers and teachers are interested in learning more about the nervous system and the psychological processes of learning. For example: How neuroscientific findings can help teachers develop new instructional methods to meet students

with specific learning problems? This is a question that has been developed by experts in the academic fields of Cognitive Neuroscience, Psychology, Education, Medicine, among others. However, this question comes to neuroscientists evaluation methods applied to educational interventions are used. Because debates that question the research methods neuroeducación have created societies and scientific journals to publish studies on this subject. This new field is called Mind, Brain and Education or Neuroeducation. Some of these magazines are: Mind, Brain and Education, Educational Trends in Neuroscience; and Developmental Cognitive Neuroscience.

During the initiative of the Decade of the Brain (1990-1999) former US President George W. Bush convened several federal agencies such as the National Institute of Mental Health (NIMH acronym) and the National Institutes Health (NIH for its acronym in English) for the development of educational programs, laboratories and neuroscientific research. The initiative of the Decade of the Brain opened space for the publication of thousands of related items subject of neurosciences. More recently the current president Barack Obama, in 2013, started the initiative called Brain Research through Advancing Innovative neurotechnologies (BRAIN for its acronym in English). Through the years, the information produced by all research has been used in various ways. One is the development of new academic field Neuroeducation. But some findings have been misinterpreted or exaggerated unintentionally. Such misinterpretations are known as neuromyths.

Neuromyths are false beliefs about the functioning of the nervous system. Many times have you heard that only 10% of the brain is based, that there are critical periods for learning a second language; or learning two languages ??simultaneously interferes with the development of the main language. Leaders in the field of Neuroeducation have called on all teachers to meet these neuromyths. Moreover, it has been shown that through the teaching of neuroplasticity a group of teenage students showed better performance and motivation in a high school course. Also, promoting neuroplasticity teaching helps change the perspective on biological determinism and attitudes of teachers in the classroom, the myth of three years on brain functions set from early age and the myth that learning problems related to differences in brain development can not be improved through education.

Neuroeducation academic field has established a relationship between neuroscience, psychology and education. The biological basis of learning should be studied in greater depth and understanding to achieve inform the general public about the learning process. However, educators are required to inform neuroscientists on effective instructional methods that can shed light on neurocognitive processes. Through Neuroeducation may motivate teachers and students to understand how our brain works and accordingly adjust their functions. This academic field is very interesting and has inspired highly motivated professionals to wonder how the brain learns. Teachers, psychologists and neuroscientists must integrate in these investigations to promote Neuroeducation.

Referencias

Bruer, J. T. (1994). Schools for Thought: A sicence of Learning in the Classroom. London: A Bradford Book.

Bruer, J. T. (1997). Education and the Brain: A Bridge Too Far. Educational Researcher, 4-17.

Doudin, P.-A., & Meylan, N. (2015). Neuromyths Among Teachers and Student Teachers. Mind, Brain and Education, 50-59. doi:10.1111/mbe.12070

Fischer, K. W., Goswami, U., John, G., & the Task Force on the Future of Educational Neuros. (2010). The Future of Educational Neuroscience. Mind, Brain, and Education. International Mind, Brain and Education, 4, 68-80. doi:10.1111/j.1751-228X.2010.01086.x

Goswami, U., Thomson, J., Richardson, U., Stainthorp, R., Highes, D., Rosen, S., & Scott, S. K. (2002). Amplitude envelope onsets and developmental dyslexia: A new hypothesis [Abstract]. Proceedings of the National Academy of Sciences of United States of America, 10911-10916. doi:doi:10.1073/pnas.122368599

Howard-Jones, P. A. (2014). Neuroscience and Education: myths and messages. Nature Reviews Neuroscience, 817-824. doi:doi:10.1038/nrn3817

OECD. (2007). Learning Sciences and Brain Research. Paris: OECD Publishing.

Roselli, M., & Ardila, A. (2003). The impact of culture and education on non-verbal psychological measurements: A critical review. Brain and Cognition, 326-333. doi:doi:10.1016/S0278-2626(03)00170-2

Skolnick Weisberg, D., Keil, C. F., Rawson, E., & Gray, R. J. (2008). The Seductive Allure of Neuroscience Explenations. Journal of Cognitive Neuroscience, 470-477. doi:10.1162/jocn.2008.20040

Suro, B., & Cruz Bermúdez, N. (2012). Perception of neuroscience among undergraduate students of psychology an dbiology of the University of Puerto Rico RO Piedras Campus. Perception of neuroscience among undergraduate students of psychology and biology of the University of Puerto Rico, Ro Piedras Campus. Society for Advancement of Hispanics/Chicanos and Native Americans in Science National Conference.

Wilkerson, L., & Irby, D. (1998). Strategies for improving teaching practices: a comprehensive approach to faculty development. Academic Medicine: Journal of the Association of the American Medical Colleges, 387-396.

Tags:

- Cognitive Neuroscience [3]
- Educational Neuroscience [4]
- NEuroeducation [5]
- cognition [6]

• Psychology [7]

Source URL:https://www.cienciapr.org/en/blogs/members/neuroeducation

Links

[1] https://www.cienciapr.org/en/blogs/members/neuroeducation [2]

https://www.cienciapr.org/en/user/juanvic5185 [3] https://www.cienciapr.org/en/tags/cognitive-neuroscience [4]

https://www.cienciapr.org/en/tags/educational-neuroscience [5]

https://www.cienciapr.org/en/tags/neuroeducation [6] https://www.cienciapr.org/en/tags/cognition [7]

https://www.cienciapr.org/en/tags/psychology