

THEORETICAL ASPECTS OF NEUROGRAPHICS IN THE CONTEXT OF TEACHING FOREIGN LANGUAGES

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Abstract

Many years human brain was an object of study for researchers not only in the field of medicine and biology. As a result, according to the principle of integrality, the development of many new scientific fields can be observed (Neurobiology, Neurolinguistics, Neuropsychology, Neurographics etc.). Neurolinguistics considers the issue of brain interhemispheric asymmetry in the context of speech development and language learning. Therefore, the study of humans' laterality, which based on data of each hemisphere's role in the organization of cognitive processes, is relevant. In this paper, it is assumed, Neurographics, has been working in the field of forming new neural connections, can be effective in teaching foreign languages.

NEUROPLASTICITY



Methods and materials



The author uses the method of theoretical analysis and synthesis of scientific literature concerning different neurosciences. From a neurobiological point of view, learning is the formation of neurons' set in the cerebral cortex (neural networks). Depending on the stimulation of neurons, some connections become stronger and more effective, while others are weakened. This quality is called «neuroplasticity». It means the ability of nervous tissue to structural and functional rearrange. The most famous Russian physiologists and psychologists, such as Bernstein N.A., Anokhin P.K., Vygotsky L.S., Leontiev A.A., Lurija A.R. studied this issue.

In 2014 Neurographics is discovered by professor of psychology P.M. Piskarev as a new direction in the art therapy. Neurographics is the method of is a graphic representation of neurons. The phenomenon of the method is a combination of science and art: psychology, brain neuroplasticity, and graphics. The present process of conscious drawing has a key feature: in the course of working with the hands, it involves the premotor cortex of the cerebral hemispheres (an area is younger than the limbic system). It is important to note, «There are some reasons to consider the hand as an organ of speech, the same as the articulation apparatus. From this point of view, the projection of the hand is another speech zone of the brain» [1].

Results

Another significant point is the number of lines – «Piskarev's lines» or «neurographic lines». Multifunctionality of effects of Neurographics is based on the mobilization of neural networks and the use of the highly developed quality of neuroplasticity in it. Thus, it's safe to assume since sensory stimulation of cortical fields and subcortical structures of the brain, achieved by the method of Neurography, make it possible to increase the effectiveness of human cognitive abilities, which can have a positive impact on learning foreign languages, especially in old age.

Conclusion

Having described some theoretical substantiation it is most reasonable conclude that this hypothesis should be practically investigated. At the moment an experimental group is being formed.

References:

1. Piskarev P.M. Predposylki formirovaniya metoda «Nejrografika» // Metodologiya sovremennoj psichologii / pod red. V.V. Kozlova, A.V. Karpova. V.A. Mazilova, V.F. Petrenko. – Vyp. 6. – Yaroslavl: YARGU: RAN, MAPN, 2016. S. 335-344