

The Silva mind training system & changes in EEG alpha power

Abstract

This research was done to demonstrate that the Silva Graduate can increase the production of his Alpha brain wave rhythm when he enters his basic plane level.

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PRELIMINARY INFORMATION:

The purpose of this work was to study the electroencephalographic changes and the distribution of the Alpha rhythm in Silva graduates during the practice of "dynamic meditation," which differs from other Western relaxation techniques and from meditation systems of the Orient. (Usanos, 1980).

For this end, 20 Silva graduates were studied electroencephalographically, of which a group of 11 was selected for the research study. (Two of the graduates were not included because they did not present Alpha in the basal readout, and the remaining seven were excluded for various reasons in connection with the research requirements, such as schedule incompatibility).

The EEG readouts of the 11 graduates selected as research subjects were obtained under two conditions: 1) Basal, and 2) during "dynamic meditation." In both cases, the readouts were analyzed visually and through a computer program designed for this purpose. The brain activity of the subjects was recorded from the temporal, occipital, frontal and central areas.

RESULTS:

The power of Alpha (voltage 2) increased significantly in the occipital and temporal areas during the practice of "dynamic meditation" (the frequency, however, remained constant).

There were no significant differences in the way either hemisphere responded to "dynamic meditation" (both hemispheres responded similarly).

DISCUSSION AND IMPORTANT OBSERVATIONS:

Several authors have reported incompatibility between Alpha activity manifestation in the rear areas of the brain - indicative of a state of relaxation or psycho sensory rest - and the process of creating mental images. Nonetheless, [Bremner \(1972\)](#) postulates in his experimental model on attention, that mental images or "internal focusing" are not incompatible with an increased production of Alpha.

It is a widely known fact that meditation and relaxation methods (Yoga, Zen, Transcendental Meditation, [Autogenic] Training, etc.) produce effective mental and physical relaxation, as demonstrated by EEG changes in the Alpha frequency band (increase in this activity).

In the present research study the subjects were not in a state of mental relaxation, in the strict sense of the term - for that matter, the Silva system has exercises specifically designed to achieve a deep level of mental and physical relaxation - but rather in a condition referred to as Basic Plane Level (BPL). It is interesting to point out that in order to reach this condition the Silva system involves the repetition and visualization of numbers.

The BPL has to do with a certain level of mental and physical relaxation that, together, produces an ideal state to practice dynamic meditation. This meditation, whose ultimate goal can be stated in terms of the wholesome development of the human being, is achieved through specific techniques of self-awareness, self-education, self motivation, self-programming, syntonization and detection of information for solving problems, etc. All of these techniques imply great mental activity, rich in imagery.

The results obtained in our research show that the Silva graduates that were studied produced a significant increase in the median values of Alpha in the occipital (O 1 and O 2) and temporal (T 3 and T 4) areas of the brain while in a state of dynamic meditation achieved through the Silva system. This increase in Alpha power indicates a lower level of perception of the external environment and a partial disconnection of some sensory areas. It has been reported that mental images, as opposed to sensory images, involve activity in the frontal lobes (Changeux, 1985); this could explain the results obtained in our research.

ABSTRACT

An electroencephalographic recording of 11 Silva graduates was performed in basal and in "dynamic meditation" conditions. Former studies report EEG changes in subjects practicing methods of meditation and relaxation. Our results indicate a significant increase in the median values of Alpha power in the occipital (O 1 , O 2) and temporal (T 3, T 4) areas of the brain while the research subjects were in a state of "dynamic meditation."