

# **Additional Effects Of Multisensory Perception Of Music With A Vibroacoustic Mat To Pure Listening of Music**

by

**Authors:** M.Hofmann<sup>1</sup>, A. Friesecke<sup>1</sup>, R.Schwarz<sup>1</sup>, A (Arno).Heinen<sup>2</sup>, A (Annegret).Heinen<sup>3</sup>

<sup>1</sup>SAE Institute, Campus Munich, Bayerwaldstr. 43, D-81737 München

<sup>2</sup>Interuniversitäres Kolleg für Gesundheit und Entwicklung Graz / Schloss Seggau, Petrifelderstr. 4, A - 8042 Graz

<sup>3</sup>Company Annegret Heinen IFG (Individual Enhancement of Health), Germany, Zürnstrasse 5/1, 88048 Friedrichshafen

## **Background**

Since the beginning of time sound & music played an essential role for the entire evolution. The sound therapy treated patients already by hearing and feeling (vibration) since ancient times. The investigation is to demonstrate the effects of music with special user-related design to human organism only by listening in comparison to the whole body treatment with the music via a vibroacoustic mat\*.

## **Object**

Is the experience of music more intense by simultaneously hearing and feeling via a vibroacoustic mat than by pure listening? Does the additional vibroacoustic effect cause significant decrease of stress condition to the music consumer?

## **Thesis**

Multisensory perception of music via a vibroacoustic mat makes the music consumer experience music more intensely. In particular a significant reduction of the individual stress state can be effected.

## **Design of study**

20 probands experienced special created music on the basis of standardized conditions. With an interval of 8 days the subjects experienced music first only by listening, afterwards by listening and feeling on the vibroacoustic mat.

## **Methods**

Modified SF12-core health status to evaluate mood symptoms and common status.

Voice-Frequency-Analysis (VFA acc. to Heinen) to control stress parameters and changes in personality profiles.

## **Result**

The results from SF12 and VFA correlated significantly. Both verified, that the simultaneous listening and feeling of music via a vibroacoustic mat effected a significant reduction in common stress state of the music consumers. Music has been experienced more intensely by multisensory application.

## **Discussion**

The subjective estimation of ones condition depends on ones actual emotional status. An additional objective measurement system like VFA proves to be an important instrument to validate subjective statements.

Multisensory application intensifies the experience of music and increases the proband's sensitivity. This effects an improvement of emotional stress parameters (ESP) related to the individual mental and somato-emotional status.

\* The vibroacoustic mat was provided by Annegret Heinen IFG, Germany, Zürnstrasse 5/1, 88048 Friedrichshafen