

**Applied Research Using Alpha/Theta Training  
for Enhancing Creativity & Well-Being  
Abstract  
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**Introduction.** Previous research has supported anecdotal reports of a possible correlation between the state of hypnagogia and the enhancement of creative ability (Green, 1972; Green, Green, & Walters, 1970, 1974; Parks, 1996; Stembridge, 1972; Whisenant & Murphy, 1977). Some psychologists (e.g., Maslow, 1963; Rogers, 1978) have suggested that there is also a correlation between creative ability and enhanced well-being.

**Methods.** This study utilized an 8-week repeated-measures experimental design to investigate the effects of electroencephalogram (EEG) biofeedback on the willful use of hypnagogia for increasing creativity and well-being. The sample size of 62 ( $n = 32$ /control;  $n = 30$ /experimental) was comprised of both sexes with a mean age of 45. The EEG parameters of hypnagogia were broadly defined as the presence and predominance of alpha and theta brain wave activity. Creativity was defined by the three most readily agreed upon divergent thinking abilities:(a) fluency (the ability to generate numerous ideas), (b) flexibility (the ability to see a given problem from multiple perspectives), and (c) originality (the ability to come up with new and unique ideas).

**Results.** Hypnagogia was analyzed through multiple univariate analyses of variance. The EEG data showed that both experimental and control participants were able to achieve light to deep hypnagogic states in every training session. T-tests results on fluency and originality scores from the Torrance Test of Creative Thinking and the Christensen-Guilford Associational Fluency Test showed no significant changes, pre- to post-test, for either group. However, flexibility in thinking, as measured by the Alternate Uses Test was significantly increased ( $p < .001$ ) for all participants. Well-being, as measured by the Friedman Well-Being Scale, was also significantly increased for all participants ( $p = .002$ ).

**Discussion.** The data suggest that willful use of hypnagogia may indeed increase creativity and well-being. Participants reported increased personal creativity, stress reduction, heightened self-awareness, emotional equanimity, and improved work performance.