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Educational
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MOTHER (NATURE) KNOWS BEST: EFFECT OF A BIO-INTEGRATIVE
VISUAL MOTOR APPROACH ON THE ACADEMIC PERFORMANCE OF
“AT-PROMISE” COLLEGE FRESHMEN
(260 pp.)

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The purpose of this study was to determine, via an experimental, pre-test/posttest design with control group, if a physiological (visual motor) intervention would produce significant gains in the academic (i.e. reading and mathematics) achievement of academically struggling college freshmen. Academic achievement was measured via scores on the COMPASS test, which had been previously administered and was again given at the end of the intervention. The research questions that were addressed in this study were: a) Is a Bio-integrative visual motor exercise effective in producing significant gains in the reading achievement of academically “at-risk” college freshmen? b) Is a Bio-integrative visual motor exercise effective in producing significant gains in the mathematics achievement of academically “at-risk” college freshmen? and c) Does eye dominance play a role in the efficacy of visual tracking in producing academic achievement?

Students were randomly selected from a list of full-time freshmen on academic probation at a Midwestern university. The students were then randomly assigned to either the treatment or control group. The final *N* was 26 (16 in the experimental group and 10 in the control group). The 16 students who completed the intervention met with

the researcher for 8 ½ weeks, with the total number of sessions ranging from 30 to 40. During the sessions, which each lasted about 3 minutes, the students participated in a visual tracking exercise which consisted of following with their eyes, an index card that was moved horizontally, vertically, in a circle, and diagonally. While being moved in the various directions, the card was also rotated, presenting alternate words which the student read aloud.

Because of an apparent ceiling effect for reading scores, truncated treatment group data were used in the analyses involving reading achievement. Although caution should be exercised in interpreting this research due to the small sample size, the results of the analyses conducted to address the research questions suggest that the Bio-integrative visual tracking exercise administered over several weeks may have a positive effect on reading achievement, particularly in the case of left-eye-dominant individuals, as well as on overall academic success at the college level.