



[54] INTERACTIVE COMPUTER PROGRAM FOR MEASURING AND ANALYZING MENTAL ABILITY

5,344,324 9/1994 O'Donnell et al. .... 434/258  
5,447,166 9/1995 Gevins ..... 128/731  
5,595,488 1/1997 Gozlan et al. .... 434/236

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[57] ABSTRACT

[21] Appl. No.: 08/806,500

[22] Filed: Feb. 27, 1997

Related U.S. Application Data

[63] Continuation of application No. 08/391,352, Feb. 21, 1995.

[51] Int. Cl.<sup>6</sup> ..... G09B 19/00

[52] U.S. Cl. .... 434/236; 434/219

[58] Field of Search ..... 434/236, 237, 434/219, 220

An interactive automatic system and technique for measuring and training of mental ability. In the illustrative embodiment, the invention is implemented on a computer which automatically presents a variety of visual and auditory stimuli. The system then measures reaction to the stimuli, adjusts certain stimulus parameters, and provides scores in response thereto. The scores are tabulated and displayed for analysis. In particular embodiments, the invention tests for physical reaction time, perceptual awareness thresholds, attention level, speed, efficiency and capacity of information processing by the brain and elementary cognitive processes, including memory, memory access and decision-making speed. The invention measures, identifies and quantifies noise in the subject's brain and elementary cognitive processing system, and the information exchange rate between the subject's left and right brain hemispheres. The inventive system compiles a history of the test scores, renders an overall performance rating, and delivers comments based on the subject scores. The complexity of the tests are adjusted based on the scores to optimally challenge cognitive capacities, thereby rendering more accurate evaluations of cognitive capacity, and optimizing learning of desired improvements in perceptual, physical and mental response speeds and efficiencies.

[56] References Cited

U.S. PATENT DOCUMENTS

3,916,534	11/1975	Riccio	434/64
4,057,911	11/1977	Sack	434/64
4,058,113	11/1977	Fields	128/745
4,770,636	9/1988	Buschke	434/236
4,818,234	4/1989	Redington et al.	434/247
4,934,386	6/1990	Walker et al.	131/329
4,974,833	12/1990	Hartman et al.	482/3
5,017,142	5/1991	Bemis et al.	434/220
5,079,726	1/1992	Keller	364/551.01
5,230,629	7/1993	Buschke	434/236

25 Claims, 14 Drawing Sheets

