

storing the collected environmental sensor data and the collected response data in a memory storage.

17. The method of claim 16 wherein presentation of said stimuli are on a random basis.

18. The method of claim 16 wherein presentation of said stimuli is at predetermined time intervals.

19. The method of claim 16, wherein presentation of stimuli is timed until a response signal is generated representing a sense/response time interval, further including the step of converting the sense/response time interval into a data value and storing said data value in said memory storage.

20. The method of claim 16, wherein said monitor further comprises an activity level sensor, further comprising the steps of:

- a) controlling measurement and data collection from said activity level sensor;
- b) presenting a particular timed stimulus; and
- c) storing the activity level data for a predetermined period before and after receiving a predetermined response to said particular timed stimulus.

21. The method of claim 16, wherein presentation of stimuli is timed to adjust circadian synchronization of a subject.

22. The method of claim 16, wherein said environmental data is evaluated under said program instruction set control, related environmental factors are converted to data values reflecting the relation of said environmental data, and then said data values reflecting the relation of said environmental data are stored.

23. The method of claim 16, wherein said presentation of visual and aural stimuli to a subject is dependent on said collected environmental sensor data.

24. The method of claim 16, wherein a response to a stimulus is timed and compared with a predetermined time interval, followed by the added step of varying the stimulus to increase vigilance of a subject.

25. The method of claim 16, wherein a response to a stimulus is timed and compared with a redetermined time interval, followed by the added step of varying the stimulus to effect Circadian synchronization adjustment of a subject.

26. The vigilance monitor of claim 2 further including means for determining reduced vigilance and for increasing the frequency of said second state until vigilance is restored to a desired level.

27. The vigilance monitor of claim 2 further comprising a housing, said housing containing said human subject stimulator, said human subject sensor, said electronic controller, and said means for using said information related to a subject's vigilance.

28. The vigilance monitor of claim 27 further comprising means for attaching said vigilance monitor to a human subject.

29. The vigilance monitor of claim 28 wherein said means for attaching said vigilance monitor to a human subject comprises a wristband attached to said housing, so that a human subject may affix said vigilance monitor to his wrist.

30. The vigilance monitor of claim 4 further comprising a housing, said housing containing said human subject stimulator, said motion sensor, said electronic controller, and

said means for using said information related to a subject's vigilance, said housing having a wristband attached thereto for affixing said vigilance monitor system to the wrist of a human subject.

31. The vigilance monitor of claim 2 further comprising means for recording the subject's vigilance for later retrieval.

32. The vigilance monitor of claim 4 further comprising means for recording the subject's vigilance for later retrieval.

33. An article of manufacture for evaluating memory abilities or performance of a user by presenting a simple mental, complex mental, or psychomotor test to the user comprising:

- a) a first switch having a normally open state and a closed state, and a second switch having a normally open state and a closed state, for interfacing with a user;
- b) a source of a first type of stimulus to a user;
- c) a source of a second type of stimulus to a user;
- d) instruction means for controlling presentation of said first and second type of stimuli to a user;
- e) instruction means for causing the detection of when either or both of said switches are moved into said closed state and storing the time and sequence of said closed state of each switch for later retrieval;
- f) instruction means for determining deviation of time and sequence of said closed states of each switch from stored values;
- g) instruction means for alerting a user of a deviation of time and sequence above a prescribed limit.

34. The article of manufacture claimed in claim 33 wherein said instruction means for controlling presentation of said first and second type of stimuli to said user, controls said presentation at preset times of a day.

35. The article of manufacture claimed in claim 33 wherein said instruction means for controlling presentation of said first and second type of stimuli to said user, increases the frequency of said presentation to a user based on magnitude of time deviation and the number of sequence deviations from said stored values.

36. The article of manufacture claimed in claim 33 wherein said first type of stimulus is an audible tone of a first duration, and said second type of stimulus is an audible tone of a second duration.

37. The article of manufacture claimed in claim 33 wherein said first type of stimulus is an audible tone of a first frequency, and said second type of stimulus is an audible tone of a second frequency.

38. The article of manufacture claimed in claim 33 wherein said first type of stimulus is a first light source, and said second type of stimulus is a second light source.

39. The article of manufacture claimed in claim 33 wherein said first type of stimulus is a light of a first color, and said second type of stimulus is a light of a second color.

40. The article of manufacture claimed in claim 33 wherein said first type of stimulus is a sequence of different colored light flashes embedded in a longer sequence of different colored light flashes.

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