Explanations for creativity

There are papers suggesting that there is a link between a person's random number generation ability and creativity (Stanish, 1986), (Bains, 2008). I want to test this hypothesis by doing an experiment which involves asking a person to dictate a random sequence and their Torrance's tests of Creative Thinking.

Methodology

Random number generation (RNG)

The generation of random sequence is known to be a complex, demanding and effortful task for adults. Because capacity of generating such sequence is suppressed by the conscious mind in various ways. It includes subject's concentration, short term memory, age etc. (Tune, 1964), (Baddeley, 1966).

Most difficult and possible source of error in this experiment would be assigning an index to dictated random sequence. Literature concerning RNG contains contradictory results since both increases and decreases of randomness have been reported (Persaud, 2005), (M Figurska, M Stańczyk, K Kulesza, 2007). In the present paper, I would be using the Mittenecker Pointing Test to measure the random generation behaviour of the subject (G Schulter, E Mittenecker, I Papousek, 2010).

Torrance's test

Torrance test of creativity has two parts. First part is TTCT-Verbal which consists of following five activities:

- 1. ask-and-guess
- 2. product improvement
- 3. unusual uses
- 4. unusual questions
- just suppose

Second part is TTCT-Figural which consists of following three activities:

- 1. picture construction
- 2. picture completion
- 3. repeated figures of lines or circles

In this project, I would not be asking participants to do all the activities because of time constraint. I would include following activities in measuring the creativity.

- 1. product improvement: suggest some changes to improve something
- 2. unusual uses: tell us maximum number of unusual of ordinary objects
- 3. just suppose: suppose something hypothetical and tell us about its consequences

- 4. picture construction: construct something unusual around the given figure
- 5. picture completion : complete all the shown pictures

Designed form of Torrance Test

Works Cited

- Baddeley, A. (1966). The capacity for generating information by randomization. *The Quarterly journal of experimental psychology*.
- Bains, W. (2008). Random number generation and creativity. *Medical hypotheses,* .
- G Schulter, E Mittenecker, I Papousek. (2010). A computer program for testing and analyzing random generation behavior in normal and clinical samples: The Mittenecker Pointing Test. *Behavior research methods*.
- Kim, K. (2006). Can we trust creativity tests? A review of the Torrance Tests of Creative Thinking (TTCT). *Creativity research journal*.
- M Figurska, M Stańczyk, K Kulesza. (2007). Humans cannot consciously generate random numbers sequences: Polemic study. *Medical hypotheses*.
- Persaud, N. (2005). Humans can consciously generate random number sequences: A possible test for artificial intelligence. *Medical hypotheses*.
- Stanish, B. (1986). The Underlying Structures and Thoughts About Randomness and Creativity. *The Journal of Creative Behavior.*
- Tune, G. (1964). A brief survey of variables that influence random-generation. *Perceptual and motor skills*.