



THE COMPLEXITY NAVIGATION TEST (CNT)

What does it assess?

The Complexity Navigation Test (CNT) is a test that assesses how people navigate the complexities of everyday and work problem solving. In this regard it assesses how the person's *problem solving style* interacts with *problem solving ability or capacity* in the solving of work or other problems, and it gives a very accurate reading of left and right brain hemisphere influences on a person's problem solving approach. Interesting and detailed individual feedback is generated.

In terms of work problem solving it is based on the well known Stratified Systems Theory (SST) of work – an assessment of a person's ability to do various levels and types of work problem solving is obtained. In this regard it extends and refines existing SST approaches significantly.

The test is unique on two indices:

- It is a dynamic process assessment of how a person's style of solving problems interacts with the ability to process different levels of complexity;
- It is the first ability assessment approach based in complexity theory.

Development and standardization

The CNT was initially developed in South Africa over a period from 1995 to 2001 by Dr Alexis Retief and a group of associates. It was designed to expand and revise the theory of general and work ability assessment and to improve the assessment methods involved. In developing the theory of human abilities, it takes existing SST principles further and expands them into a theory of the hierarchical thinking processes used in coping with complex systems. It sees problem solving as the dynamic and creative *navigation of complex landscapes* that people cope with every day, in work and general problem solving.

The assessment time required is less than was needed with previous approaches and the assessment method is standardized and structured. Results cannot be influenced by interpretation. This results in the high reliabilities found.

The test was proven on large samples of 1200 (2000) and 1800 (2001) people in the Standard Bank of South Africa between 1995 and 2001. The database of people assessed so far consists of approximately 10 000 people and increases as more people are assessed.

**Contact The Working Journey Pty Ltd for
further details; enquiry@workcomplexity.com**

Reliability and validity

The test has high reliability and validity. Inter-rater correlations of 0.86 were obtained. Different kinds of validity were investigated. Validity in predicting the potential and progress of groups was in the range of 0.91 – 0.96. Validity in predicting individual ability and progress was 0.35 (very close to an upper bound of 0.40 for the appropriate coefficient).

A large validation sample of 450 people with 5+ to 38 years of service provided the framework for these predictive validities. The mean period of service was 13 years and the median was 16.3.

Assessment methods

It is recommended that individually administered assessment is done. A Windows based computer version is also available for initial screening of larger numbers of people. The computer version is adaptable to standalone, single machine installation or distributed network based installation.

Computer support also enables the automatic compilation of an organisational database as assessments (in-person or computer administered) are recorded. Computer generated feedback reports for tested individuals are also generated for all sessions recorded.



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