Insights® Discovery

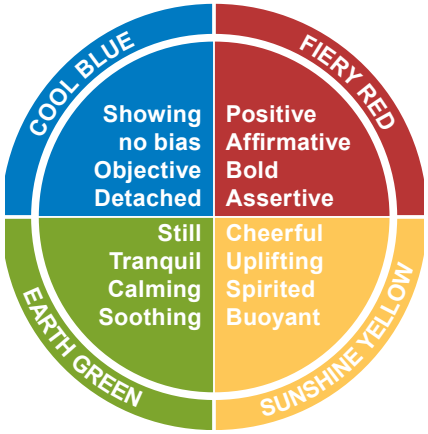
Validating the System

- **What is the academic basis to the Insights Discovery system?**
- **Has the Insights Discovery system been validated by official bodies of the psychology profession?**
- **Is the Insights Discovery preference evaluator continually tested and updated?**

Insights and Jung

The Insights Discovery System is solidly based on the psychological types theory of Dr Carl G Jung and one of his leading students, Dr Jolande Jacobi. Jung proposed that our personalities are created in the interaction of four functions and two attitudes. When combined, these elements generate eight common personality types. Jung felt that what makes an individual unique are the different balances of these functions and attitudes interacting within them. It is these balances that make up the Insights 4 Colour System. The four colours represent observable behavioural patterns:

Figure 1: The Insights Discovery 4-Type Wheel



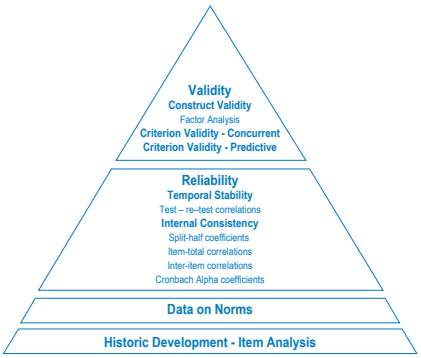
These colours are measured by the Discovery evaluator; a 25-frame questionnaire of 100 word pairs, which when completed produces the Insights Discovery Personal Profile. Designed by Andi Lothian in the early 1990's, Andi, and son Andy, founded Insights Learning & Development Ltd in 1993.

External Assessment

The University of Westminster Business Psychology Centre performed an extensive study of the Insights Discovery Evaluator English Version 3.0. Key statistical analysis was used to study the IDE's "item analysis", "norm data", "reliability" and "validity".

For a more comprehensive review of the IDE's properties, please read "An Overview of the Development, Validity and Reliability of the English Version 3.0 of the Insights Discovery Evaluator" produced at the University of Westminster's Business Psychology Centre (bpc).

Figure 2: Pyramid of key psychometric statistics



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Insights Discovery©: Validating the System

Item Analysis

There are 100 colour items spread over the 25 frames in the IDE. Item analysis involves empirically testing the quality of these 100 items and replacing weaker items with better ones. This is measured by assessing the responses of participants with clear colour preferences, i.e. those whose average across all 25 frames is greater than 5 in one out of the four colours ("Sunshine Yellow, "Fiery Red", "Earth Green" or "Cool Blue"). Figure 3 shows one of the improvements made in the items from IDE S1.0 (UK) to IDE S2.0 (UK).

Reliability

Cronbach-Alpha coefficients, α, measure the error variance on the average inter-item correlations. When the error variance is low, which is desirable, the alpha coefficient approaches 1.00. A value of 0.70 is the commonly accepted inferior limit.

Analysing 24,224 completed evaluators shows the four colours to have very high Cronbach-Alpha coefficients, providing evidence of reliability as shown in Table 1.

Table 1: Cronbach-Alpha Coefficients for IDE S3.0 (UK)

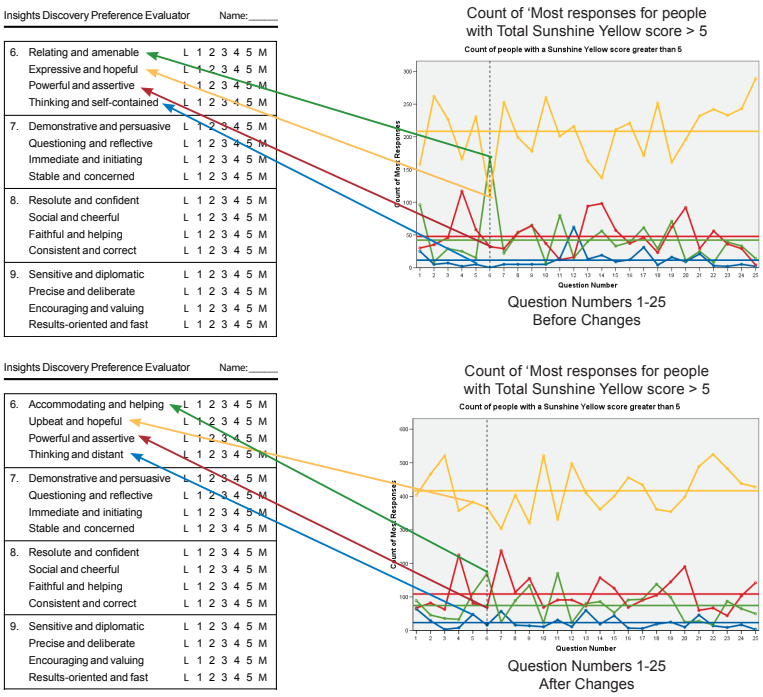
N = 24,224	Cool Blue	Earth Green	Sun-shine Yellow	Fiery Red
α	0.92	0.92	0.93	0.92

Test-retest reliability is determined through the administration of the same evaluator across time. It helps gauge how robust the items are. Such tests are generally expected to yield reliability coefficients ranging between 0.70 and 0.90.

The results of the test-retest analysis performed on the four colour scores show very high reliability, translating into coefficients ranging from 0.81 to 0.86 for the Pearson correlation coefficients and 0.89 to 0.92 for the Cronbach-Alpha reliability coefficients for the same data.

Figure 3: Example of results of item analysis - graphs show 'before' and 'after' item changes

Note: Green scoring higher than yellow on a yellow item before the alteration.



Validity

Confirmatory Factor Analysis was used to test the hypothesised factor structure of the Insights Discovery model. Specifically it is hypothesised that the four sets of 25 colour based items in the IDE should load onto the factors such that the polar opposite nature of the 'Fiery Red' vs. 'Earth Green' items is apparent and the polar opposite nature of the 'Sunshine Yellow' vs. 'Cool Blue' items is apparent. The four colours should load onto their appropriate factor only.

The results in Table 2 successfully confirm this hypothesis.

Table 2: Average Factor Loadings. IDE S3.0 (UK)

N=20,948	Factor 1	Factor 2
Earth Green	0.56	0.06
Sunshine Yellow	-0.05	0.32
Cool Blue	-0.09	-0.57
Fiery Red	-0.59	0.19

Ongoing Assessments/Validations

The constant evolution of language means that the Discovery Evaluator will continually evolve. The Insights Research Team continually monitors the Insights Discovery Evaluator in its 30+ languages. If you require any information on this process, please contact research@insights.com. Examples of the Statistical Reliability and Validity tests can be obtained from Insights Learning & Development Ltd on request.

Conclusion

Over the past decade, the work of Carl Jung has attracted increasing interest as people seek to improve interpersonal dynamics on both personal and professional levels. The scientific research of the Discovery System demonstrates that both Jung's original typology theory, and Insights' ongoing research to enhance it, has both strong psychological foundations, and modern scientific application. Depth psychology and empirical science unites within the Insights Discovery System.

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