

## FACE VALIDITY

### SUMMARY

A expert panel of 50 professionals administered 14,655 surveys and found disagreement with the survey report in less than 1% of the cases (n=128, 0.87%). The group based TeamAnalysis™ was tested by 44 experts in 921 administrations and was found to be inaccurate in less than 1% of the cases (n=1, 0.1%). The face validity of both the instrument and the consolidation methodology as represented by TeamAnalysis™ is judged to be very high.

**F**ace validity of a theory refers to results that have the appearance of truth or reality (Polkinghorne, 1988). It is often considered "useless" by psychometricians because of its vagueness (Cronbach, 1971). However, in field applications exactly the opposite is the case—face validity is one of the more important aspects of an instrument.

In field applications a substantial cost increase can be expected if an instrument does not have strong face validity. Both the administrator and the respondent must devote time to reconciling differences in judgment before learning based on that instrument can occur. In addition, a portion of these contests can be expected to fail and potential benefits that might have accrued from the use of the instrument can be lost. Thus, while face validity may be unimportant to a laboratory scientist, it can be of paramount importance to the field practitioner who must navigate the shoals of budgets and limited resources.

A high face validity also allows the tool to be applied on a broad scale. Ready acceptance means that fewer resources need be provisioned for administration. This increases the potential frequency of

application. In addition, a high face validity opens the possibility of new venues (e.g., distance learning) that can substantially increase the reach of an initiative. Thus high face validity allows an organization to enjoy higher levels of the benefits accruing through the use of an instrument.

The face validity of the Organizational Engineering survey instrument was tested by referencing the panel of experts. They were asked the following questions:

1. *Approximately how many people have you given the survey instrument to?*
2. *About how many people have claimed the instrument to be grossly inaccurate?*
3. *About how many people had substantive disagreements with elements of the report?*

The responses were tabulated and are presented for review in Table 2.

<b>EXPERT PANEL INDIVIDUAL SURVEY RESULTS</b>		
Number of Experts Participating	50	
Total Surveys Administered (Question 1)	14,665	100.00%
Face Judged Grossly Inaccurate (Question 2)	52	.035%
Face Judged Somewhat Inaccurate (Question 3)	76	0.52%

The degree of face validity of the survey instrument is high. Less than 1% of the respondents found the results of the individual survey to be less than accurate on either a gross or marginal scale. The strength of this response requires no statistical test or ratio-based assessment. The reports generated by the survey instrument are

judged to have extremely high face validity.

Face validity was also tested on TeamAnalysis™ reports administered by the expert panel. TeamAnalysis is a 25 to 35 page report that consolidates individuals comprising a group. It identifies structural vulnerabilities and strengths that arise from the interaction of individual members. Sizes of the groups assessed range from 3 to 24 people with an average of 8.9 participants. An expert judgment of the face validity of the group instrument was obtained by asking the following questions:

How many TeamAnalysis assessments do you estimate you have performed? \_\_\_\_\_

In your best estimate, what proportion of these groups agreed that the *group* behavior described in the TeamAnalysis™ was:

Highly Accurate	_____%
Reasonably Accurate	_____%
Inaccurate	_____%

The results of the consolidation of the responses are presented in Table 3. The number of experts replying did not total to 50 because some do not use the TeamAnalysis™ tool in their practice.

<b>EXPERT PANEL TEAMANALYSIS FACE VALIDITY RESULTS</b>		
Number of experts responding	44	
Total TeamAnalysis assessment conducted	921	100.0%
Highly Accurate	755	82.0%
Reasonably Accurate	165	17.9%
Inaccurate	1	0.1%

Of the 921 TeamAnalysis™ administrations, only one group was reported to have deemed the report inaccurate. A total of 99% of the groups judged the TeamAnalysis to be accurate, with 82% deeming it to be Highly Accurate and the 17.9% balance judging it to be Reasonably Accurate.

The number of experts participating, the large number of administrations, and high rate of positive acceptance argue strongly for assigning a high level of face validity to group based TeamAnalysis™ report.

In summary, both individual and group-based Organizational Engineering reports display a high level of face validity as measured by the responses of experts.