

# TTI's Validity Study



TTI continues the process of quality improvement in its assessments with this announcement of recently completed validity studies. The following summary conclusions are excerpts from research completed July 28, 2003, by Peter T. Klassen, Ph.D.

## MOTIVATION INSIGHTS™

(TTI's new Values instrument referred to as *Personal Interests, Attitudes and Values 2* below)

### Summary Conclusion

Based on a series of examinations of scale and item reliabilities, revisions were developed and tested for TTI's *Personal Interests, Attitudes and Values*™ that culminated in development of a revised instrument. The results of assessment of this revised edition indicate high or improved reliability for the six scales with Cronbach's ranging .7 to .82. Each of the seventy-six items used to construct the scales contributes at a significant level to its assigned scale. Correlations among the six scales indicate that they are substantially independent in measurements. Scores on the scales are distributed across the scales leading to meaningful comparisons and interpretation. Overall, the *Personal Interests, Attitudes and Values 2* is a strong, reliable instrument applicable across a variety of populations.

### Background

TTI's *Motivation Insights* is anchored in design and development of their prior PIAV instrument. During the late summer of 2002, TTI initiated a review of the reliability of the six scales and the associated items. That assessment utilized a sample of 2136 cases from 43,325 available cases. These data contained 60% males and 40% females. These responses represent a diverse range of those utilizing this instrument.

The *Motivation Insights* instrument contains twelve frames of six phrases. Each phrase is an indicator of one of the six latent values. Respondents rank order the six items from 1=Most like me, to 6=Least like me. Scales are constructed by reversing the values, summing up related item's ranks, and adjusting the score upward to avoid 0's. The scales are labeled as theoretical, utilitarian, aesthetic, social, individualistic, and traditional.

Scale reliabilities and item cohesion to assigned scales were examined as described later. Based on analysis of these indicators a limited number of items were revised, edited, and field-tested. Item revisions were based on theoretical construction of items combined with linguistic considerations that focused on current usage and minimization of social desirability bias.

The *Motivation Insights* instrument was, prior to release, subjected to several rounds of field-testing, further editing and confirmation of revisions. The current release confirms increased or high reliability in each of the scales.

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# TTI's Validity Study *(continued)*

## Revised Scale Reliability

Scale reliabilities were calculated using Cronbach's Alpha. Cronbach's Alpha is considered the most appropriate statistical test for reliability, given the dichotomous responses used to construct the scales. For dichotomous data, this is equivalent to the Kuder-Richardson formula 20 (KR20) coefficient. These statistics model internal consistency, based on the average inter-item correlation. These evaluations are a more rigorous approach than a traditional split-half statistic. Cronbach's Alpha ranges in value from 0 to 1. In general an alpha equal to or greater than .6 is considered a minimum acceptable level, although some authorities argue for a stronger standard of at least .7.

The lowest PIAV reliabilities have improved substantially, and in the *Motivation Insights* instrument exceeds or equals the stronger .7 standard. These findings document the revised *Motivation Insights* as an instrument with solid scale construction and reliability.

<b>New Motivation Insights™ (PIAV 2)</b>	
Theoretical	.77
Utilitarian	.80
Aesthetic	.82
Social	.82
Individualistic	.70
Traditional	.81