

Technical Report— 2003 Update 1

VIEW: An Assessment of Problem Solving StyleSM

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This document is a working paper, the purpose of which is to update the descriptive data and the data providing psychometric support for the validity and reliability of VIEW: An Assessment of Problem Solving Style. This report supplements the data provided in the *VIEW Technical Guide and User's Manual* and summarized in VIEW: Technical Summary (2002).

Supporting Psychometric Data

The current edition of *VIEW* is the outgrowth of four prior rounds of development and revision based on data collected from more than 4,000 subjects, from 34 states and several foreign countries, and ranging in age from 11 to 84. This update provides specific data based on the normative data set for the current edition of VIEW.

The normative data set combines data from both the print and on-line editions of VIEW. Although we have only a preliminary sample of convenience of users who have responded to both the print and the on-line forms (N=17), the results are highly encouraging. The correlations between the two formats are: Orientation to Change, $r = .923$; Manner of Processing, $r = .917$; and Way of Deciding, $r = .978$; each of these correlations is significantly different from zero ($p < .01$). The means and standard deviations for all three dimensions are comparable, and do not differ significantly, as noted in the table below.

Dimension	On-Line Edition	Paper Edition	T	p
	Mean (S.D.)	Mean (S. D.)		
Orientation to Change	55.88 (21.00)	54.41 (20.00)	<1	n.s.
Manner of Processing	25.18 (11.69)	25.76 (12.16)	<1	n.s.
Way of Deciding	30.41 (9.69)	30.29 (10.10)	<1	n.s.

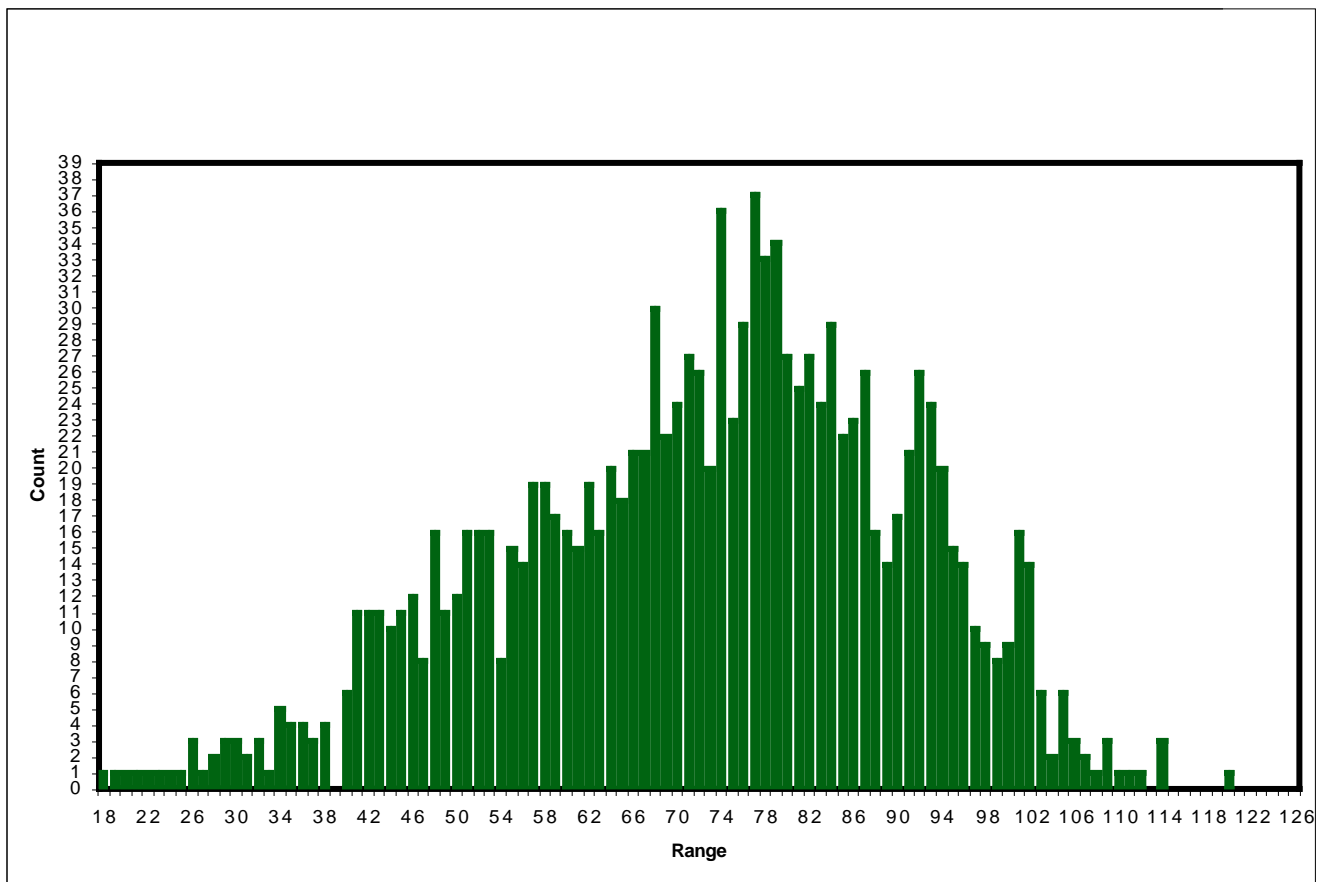
Summary of Descriptive Data

The normative data set for the current edition of VIEW includes 1,258 subjects. The mean age of the sample is 41.4 years ($sd = 10.77$; range = 14-82), based on 1,028 subjects; 230 subjects declined to state their age. The median age of the sample is 41, and the mode is 37. The sample includes 570 males, 672 females (16 subjects declined to state their gender). The sample participants all responded to VIEW in the English language.

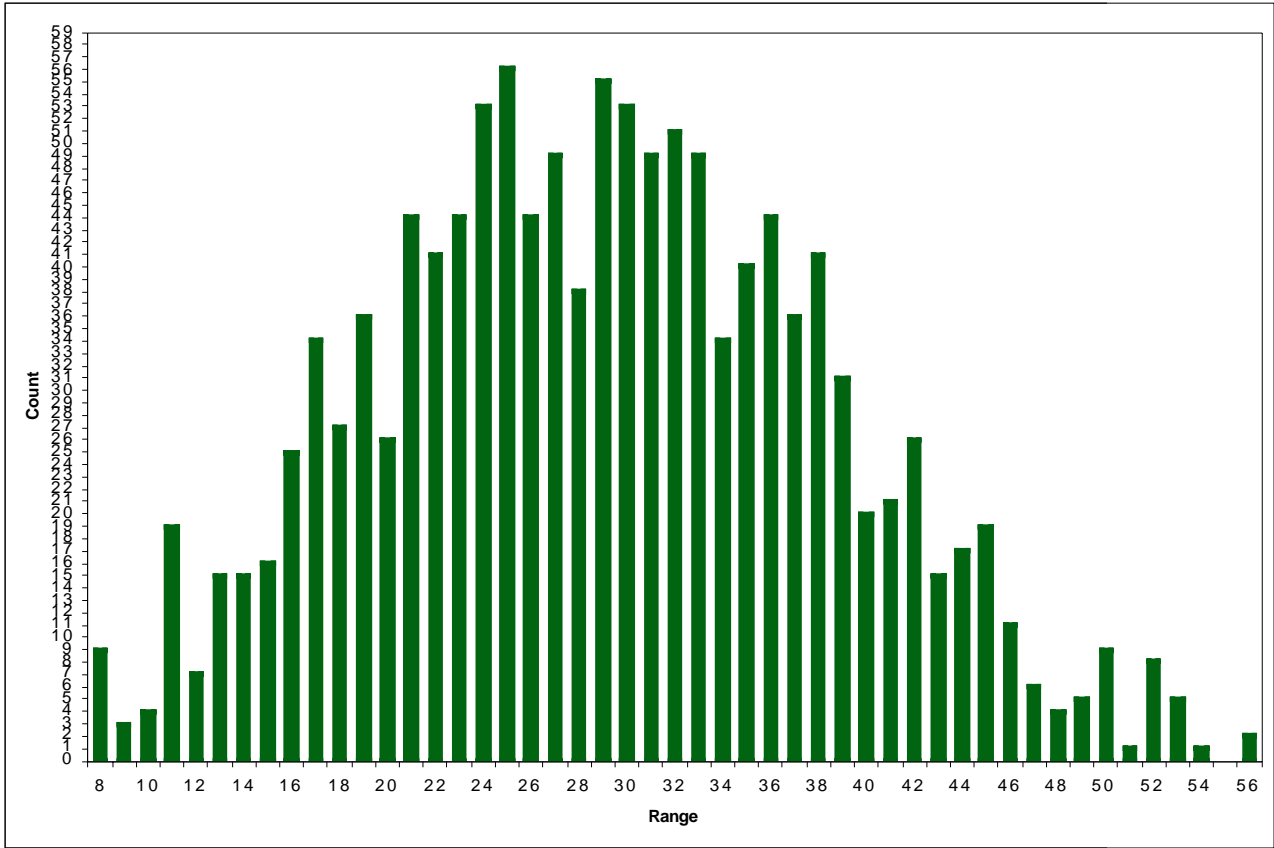
For this sample, the table on the following page summarizes several important descriptive statistics for each of VIEW's three dimensions: Orientation to Change (OC), Manner of Processing (P), and Way of Deciding (D). The sample size for all rows in the table is $N = 1,258$.

Statistic	OC	P	D
Mean	72.45	29.06	33.41
Std. Deviation	17.98	9.39	8.97
Skewness	-0.35	0.16	-0.09
Kurtosis	-0.29	-0.37	-0.52
Minimum	18.00	8.00	8.00
Maximum	120.00	56.00	56.00
Std Error of Measure	5.39	3.39	3.23

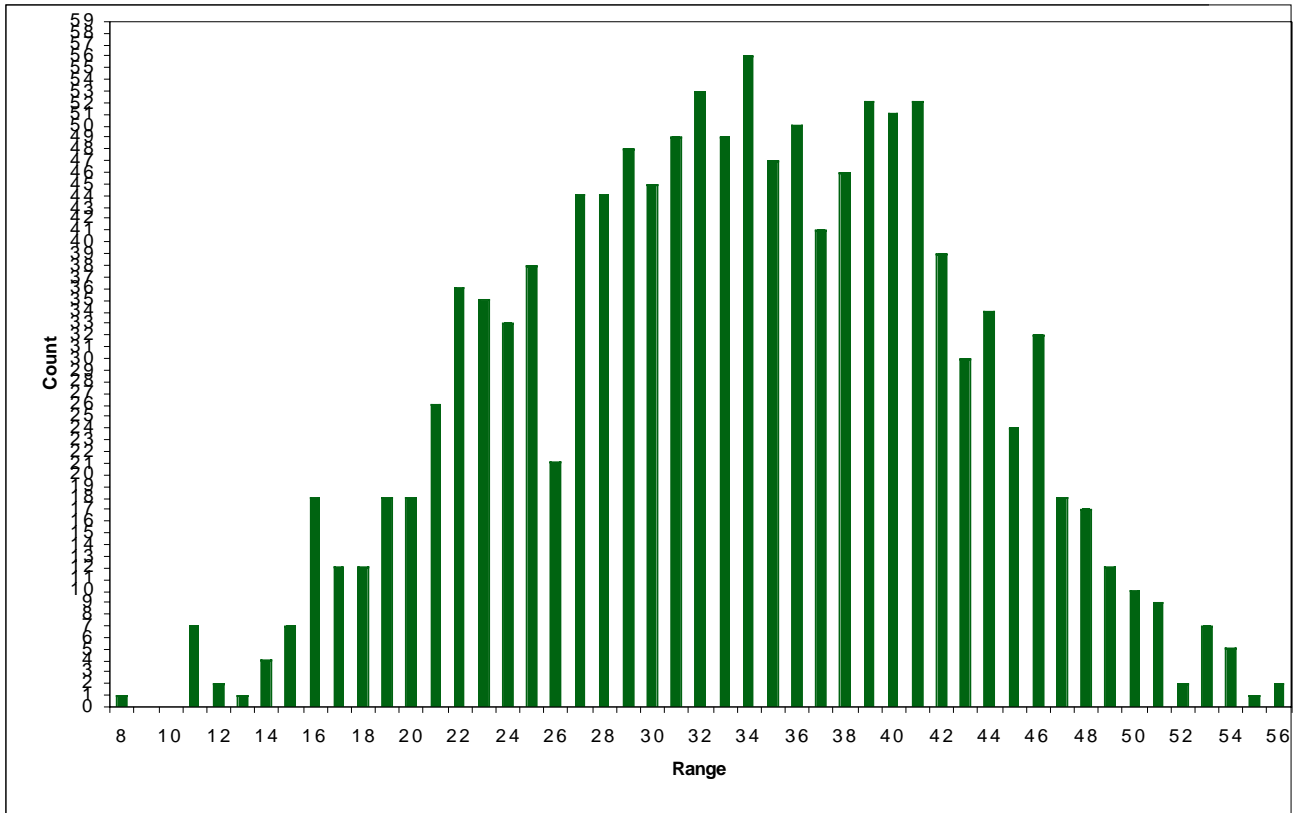
The figures in the following three charts (below and on the next page) present graphically the distribution of scores for each of the three dimensions.



Distribution of Scores: Orientation to Change



Distribution of Scores: Manner of Processing



Distribution of Scores: Ways of Deciding

Distribution of Scores by Interaction of VIEW Dimensions

The table below presents the number of subjects in each of the eight categories representing interactions of all three dimensions, based on the current normative sample (N=1,258). The table presents the actual number of subjects in each category and the percentage of the total sample that number represents.

		Explorer		Developer	
		External	Internal	External	Internal
P e r s o n		207 (16.5%)	90 (7.2%)	140 (11.1%)	82 (6.5%)
	T a s k	169 (13.4%)	114 (9.1%)	246 (19.6%)	210 (16.7%)

Intercorrelations Among VIEW's Dimensions

This section presents data regarding the intercorrelations among VIEW's three dimensions.

Variable	OC	P	D	Age	Gender
OC	1.00	0.141**	0.214**	-0.126**	0.123**
P		1.00	0.210**	0.037	0.001
D			1.00	-0.054	-0.228**
Age				1.00	0.111**

** = Significantly different from zero ($p \leq .01$)

By virtue of the size of the sample, several of the correlations reach statistical significance. Keep in mind that this indicates that the coefficients obtained are reliably different from zero; it suggests that the relationship reported is not a "chance" result. It does not indicate that there is a relationship of substantial degree between the variables; we must assess the magnitude of the relationship independently. We hold that, while we can be confident in the results we obtained, those results indicate relationships between any two of the variables that are generally weak or negligible in relation to practical implications. Thus, these data support the conclusion that the three dimensions of VIEW are independent.

Reliability of VIEW

We examined the internal consistency of VIEW's three dimensions using Cronbach's coefficient Alpha. The coefficient Alpha results for the current sample were .907 (Orientation to Change; OC), .869 (Manner of Processing; P), and .865 (Way of Deciding; D). These results indicate strong support for the internal consistency of VIEW.

Additional studies of the test-retest reliability of VIEW are underway; the preliminary studies reported in the VIEW Manual and the 2002 Technical Report were very positive.

Evidence Supporting the Validity of VIEW

We have conducted new factor analytic studies of the instrument on the current normative data set (N=1,258), using a Principal Components Analysis to extract the factor structure, and a Varimax procedure with Kaiser normalization as the rotation method. The rotated factor structure suggests that VIEW's 34 items can be accurately described in a three-factor model. The factor loadings for all three dimensions are included; Component 1 represents the OC dimension, Component 2 represents the P dimension, and Component 3 represents the D dimension. All factor loadings of .30 or greater are reported. The table on the next page summarizes the factor analytic results.

Additional validity studies are being conducted by VIEW's authors and by other independent researchers, and will be reported separately in future updates.

Factor Analysis of VIEW Date (N=1258); Varimax Rotation

	Component		
	1	2	3
	0.777		
	0.759		
	0.695		
	0.682		
	0.667		
	0.667		
	0.646		
	0.639		
	0.639		
	0.623		
	0.614		
	0.598		
	0.592		
	0.568		
	0.565		
	0.521		
	0.456		
	0.373		
		0.769	
		0.759	
		0.744	
		0.721	
		0.673	
		0.670	
		0.652	
		0.647	
			0.761
			0.754
			0.747
			0.739
			0.732
			0.715
			0.682
			0.594