

VIEW: 2004 Technical Update

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Since the initial publication of the current edition of VIEW, we have continued to monitor the data set, to engage actively in our own program of research and development, and to encourage other researchers to conduct independent studies using the instrument. This Technical Update presents the supporting statistical information regarding the instrument, based on the master VIRE database as of Summer, 2004. For a complete discussion of the data supporting the instrument's validity and reliability, we refer you to the *VIEW Technical Manual* (Selby, Treffinger, Isaksen, & Lauer, 2004), which is now available as a separate publication.

Descriptive Statistics

The master database for the current edition of VIEW as of Summer, 2004 included 3,676 subjects. The mean age of the sample was 41.3 years (sd= 10.52; range= 13-82), based on 2,267 subjects who provided age data. The sample included 1,389 males, 2,251 females, and 36 subjects who declined to state their gender. The participants all responded to VIEW in the English language. Table 1, below, summarizes several important descriptive statistics for each of VIEW's three dimensions: Orientation to Change (OC), Manner of Processing (MP), and Way of Deciding (WD). The sample size for all rows in the table is N= 3,676.

Table 1: Summary of Descriptive Statistics for VIEW

Statistic	OC	MP	WD
Mean	73.8	30.6	33.5
Std. Deviation	16.7	9.3	8.6
Median	75.0	31.0	33.0
Mode	78.0	32.0	32.0
Skewness	-0.371	0.079	-0.074
Kurtosis	-0.095	-0.293	-0.266
Minimum	18.0	8.0	8.0
Maximum	126.0	56.0	56.0
Std Error of Measure	5.78	3.59	3.43

Comparison of On-Line and Paper Editions

The complete data set combines data from both the print and on-line editions of VIEW. For a sample of convenience of users who have responded to both the print and the on-line forms (N=17), the results indicate that both forms yield highly comparable results. 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 Table 2, below.

Table 2: Correlations Between On-Line and Paper Editions of VIEW

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.

Intercorrelations Among VIEW's Dimensions, Age, and Gender

Table 3, below, presents data regarding the intercorrelations among VIEW's three dimensions, and the correlations of both age and gender with each of the three VIEW dimensions.

Table 3: Intercorrelations of VIEW Dimensions, Age, and Gender

Variable	OC	MP	WD	Age	Gender
OC	1.00	0.13**	0.13**	-0.15**	0.14**
MP		1.00	0.13**	0.00	0.07
WD			1.00	-0.08	-0.29**
Age				1.00	0.06

N=3,676 ** = Significantly different from zero (p.01)

These data support the conclusion that the three dimensions of VIEW are independent. There are few significant correlations of the scores on the three VIEW dimensions with age or gender. There is a small ($r = -.15$) but significant correlation between age and the OC dimension (the negative correlation suggests that the direction is for older subjects to be associated with Explorer

preferences), although the small magnitude of the correlation indicates that this is a very weak relationship. Similarly, there is a small, but significant correlation, also suggesting a very weak relationship, in the direction of females indicating a Developer preference. Finally, as the table below indicates, we found a greater preference for the Person style on the WD dimension among female respondents, and a greater preference for the Task style among male respondents. Based on psychological type theory and research (Myers, McCaulley, Quenk, & Hammer. 1998), this was not a surprising finding.

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.

Distribution of Scores: Orientation to Change

Figure 1, on the following page, presents the total distribution of scores for the OC dimension, based on the current master data set (N=3,676). This figure uses a histogram to enable us to inspect the distribution of the subject responses on the OC dimension visually, and helps us to interpret the central tendency and distributions of responses, to clarify the data that were presented numerically in Table 1. The distribution for OC, presented in Figure 1, shows a generally normal ‘bell shaped’ curve that is slightly skewed to the right of the scale (or “negatively skewed”). The observed mean of 73.8, the median of 75, and the mode of 78 are all slightly higher than the theoretical mean of 72 for the scale. (In a “perfectly” normal distribution, the mean, median, and mode would all be identical, and would be 72 for this scale.) The responses on the scale ranged from 18 - 126, which does represent the full range of possible scores for the scale. The standard deviation (SD) is 16.7, and the reliability of this scale, using Cronbach’s Coefficient Alpha, is .88. Thus, the standard error of measure (SEM) for OC is 5.78. (Thus, given an observed score, there is a 68.26% probability that the person’s true score would be that score ± 5.78 .)

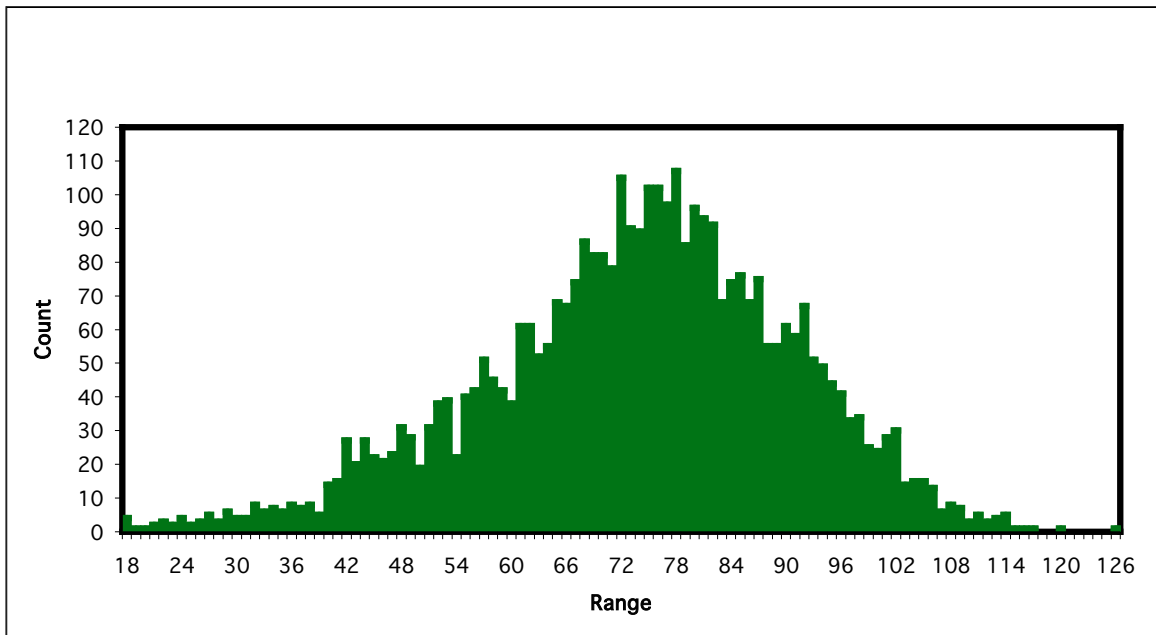


Figure 1: Distribution of Scores: Orientation to Change (OC)

Distribution of Scores: Manner of Processing

Figure 2, on the following page, presents the distribution of responses for the Manner of Processing (MP) scale of VIEW. For this dimension, the ‘bell shape’ of the distribution is slightly platykurtic, with a slight positive skew. The observed mean of 30.6 is slightly lower than the theoretical mean of 32 for the scale, while the median is 31 and the mode is 32; the responses span the entire 8 – 56 point range of the scale. The standard deviation (SD) for this scale is 9.3, and the Cronbach’s Alpha reliability is .85. Therefore, the standard error of measure (SEM) for the MP scale is 3.59. (Thus, given an observed score, there is a 68.26% probability that the person’s true score would be that score ± 3.59 .)

Distribution of Scores: Ways of Deciding

Figure 3, on the following page, presents the distribution of results for the Ways of Deciding (WD) scale of VIEW. The distribution shown here is generally normal (“mesokurtic”), although slightly negatively skewed. The observed mean of 33.5 is higher than the theoretical mean of 32 for the scale. The median is 33 and the mode is 32, and, as for the MP scale, the WD responses spanned the entire 8 – 56 point range of the scale. The standard deviation (SD) for this scale is 8.6, and the Cronbach’s Alpha reliability is .84. Therefore, the standard error of measure (SEM) for the WD

dimension is 3.43. (Thus, given an observed score, there is a 68.26% probability that the person's true score would be that score ± 3.43 .)

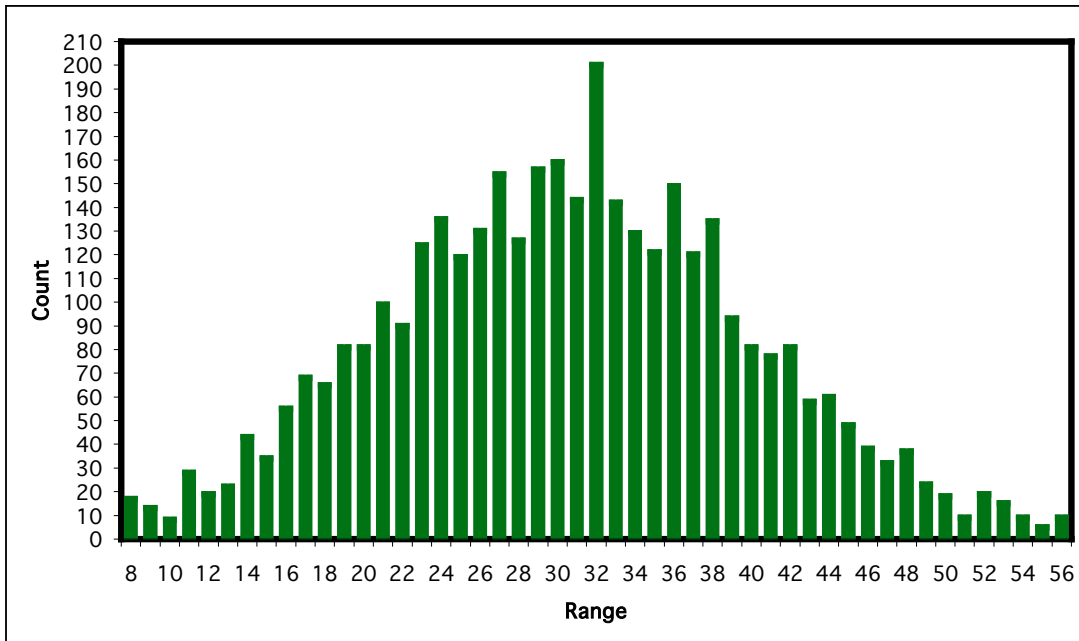


Figure 2: Distribution of Scores: Manner of Processing (MP)

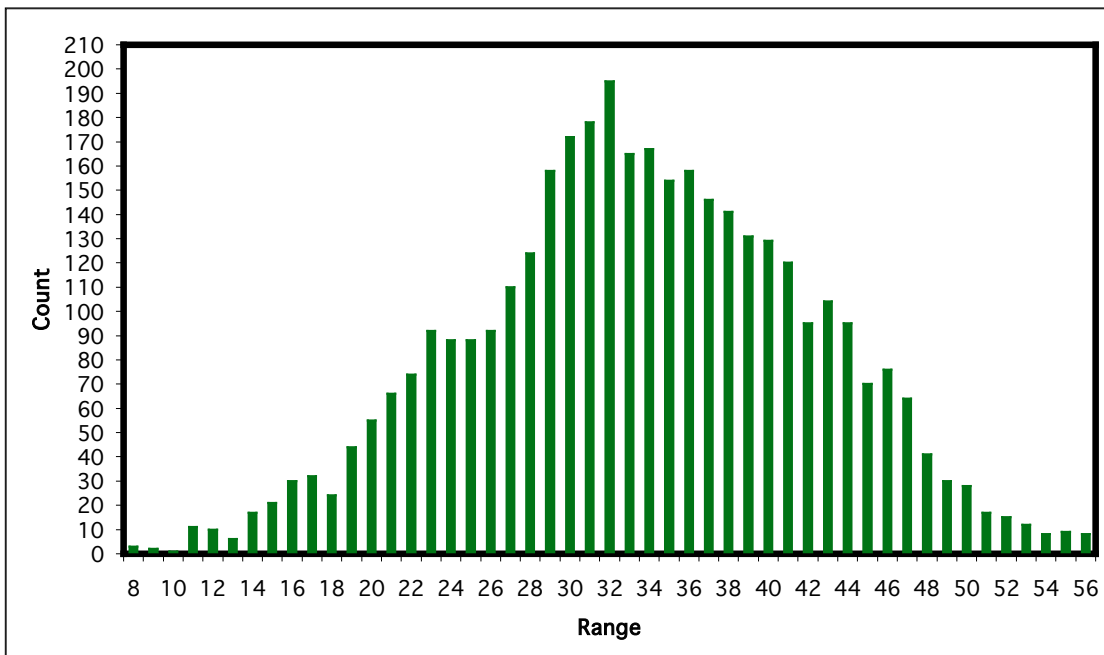


Figure 3: Distribution of Scores: Ways of Deciding (WD)

Distribution of Scores by Interaction of VIEW Dimensions

Figure 4, below, presents the number of subjects in each of the eight categories representing interactions of all three VIEW dimensions, based on the current master database (N=3,676).

		Explorer		Developer	
		External	Internal	External	Internal
P e r s o n		486 (13.2%)	323 (8.8%)	469 (12.8%)	415 (11.3%)
	T a s k	440 (12.0%)	356 (9.7%)	574 (15.6%)	613 (16.7%)

Figure 4: Frequency of Scores By Interaction of VIEW Dimensions

The distribution of scores differs from the pattern that might be expected by chance (i.e., 12.5% of the cases in each of the eight combinations). There is no conceptual reason, however, to believe that the scores would be distributed on a chance or random basis. Despite the fact that the master database contains a relatively large number of subjects, it is nonetheless an accumulation of samples of convenience and opportunity, and strictly not a random sample of the total population of all adolescents and adults. Therefore, we cannot conclude with certainty that the combinations that seem “over-“ or “under-represented” in the distribution reflect greater or smaller incidence of those combinations in the population. We will continue to monitor these patterns as the master database expands over time.

We believe that the data presented in this 2004 Technical Update will guide VIEW users in understanding and interpreting VIEW results accurately, and in assisting respondents in understanding their results (and the implications of those results) appropriately. We continue to invite research on VIEW by scholars and practitioners in many disciplines or settings.

References Cited

- Myers, I. B., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998), *MBTI manual: A guide to the development and use of the Myers-Briggs Type Indicator. (3rd. Ed.)*. Palo Alto, CA: Consulting Psychologists Press, Inc.
- Selby, E. C., Treffinger, D. J., Isaksen, S. G., & Lauer, K. J. (2004). *VIEW Technical Manual*. Sarasota, FL: Center for Creative Learning.