

VALOR --- VALUES

ARRANGEMENT LIST for ORGANIZATIONS

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History and Development of the Values Arrangement List for Organizations

There are three basic measurement issues that researchers typically confront when developing a survey to measure values. The first issue is whether a value should be measured by one item or multiple items? Braithwaite and Scott (1991) point out that no one item can be a pure measure of a construct because a single item reflects error. Other studies have reported that a value should be measured by multiple items to increase the reliability and validity of the scale (Braithwaite & Law, 1985; Gorsuch & McFarland, 1972; Mueller, 1974). Single item measures also are particularly problematic when making cross-cultural or organizational comparisons (Braithwaite & Scott, 1991). Other studies have found that one well defined item is enough and that multiple items would lengthen and complicate the measurement procedure (Braithwaite & Scott, 1991; Rokeach, 1967).

The second issue is whether the instrument should require the individuals completing it to rate or rank each value. The type of data acquired from ranking is ipsative in nature, meaning that the information gathered is the relative judgment of one value against another. Braithwaite and Scott (1991) suggest that this is a problem because the information gathered on the value is only relative, and knowledge about the absolute strength of the value is not gathered. This also makes the statistical analysis awkward. However, absolute ratings are also problematic. Because values are often perceived as socially acceptable and desirable, individuals may tend to use the extreme positive categories on a rating scale. This leads to a skewed distribution, which also creates statistical analysis problems.

The third issue, related to the first two, is whether values should be evaluated alone or in comparison to others. Many values may have a high importance. However, what happens when a choice must be made between two values that are both extremely important to the individual completing the survey?

The origin of the VALOR is traced to David Saunders, Ph.D., a nuclear physicist by training, who applied his expertise of advanced statistics and measurement towards the development of a more efficient means of measuring human and organizational values. Driven to find a means minimizing the problems associated with measuring values, Saunders called upon a complex measurement technique referred to Balanced Incomplete Block Design (BIBD). The BIBD method is similar to the method of paired comparisons that can be used to assign scores to attributes that possess an interval level of measurement. In the BIBD method of paired comparisons, a person is

presented with pairs of attributes and chooses one over the other. This is done for all possible pairings of attributes. For prioritizing values, the method of paired comparisons would compare pairs of values, by successively choosing one as more important than another. It would be possible to derive the relative placement and distance between each value on an underlying continuum of importance. However, for 21 values this method would require 210-paired comparisons, which would wear out the patience of most test takers.

One way of reducing the number of sets is to increase the number of values being compared in each set. Instead of choosing one as more important, the test taker ranks each value in importance. By taking advantage of Latin Square designs it is possible to construct balanced, incomplete blocks or sets for some but not all lengths of value lists. For example, it is possible to construct designs for lists comprising 13, 15, 16, 21, 25, 26, and 31 values, but not for numbers in between. "Balanced" means that every value occurs the same number of times; "incomplete" means that the number of sets is reduced by not introducing every possible combination of each value with every other value and each possible ordering. In fact, the minimum number of sets needed to compare each value with the remaining values is introduced.

A survey system that relied on rankings rather than ratings was preferred because many previous values theorists believed that values only possess saliency in relation to some other value. Most people are in favor of a clean environment and economic prosperity, but some people are more in favor of economic prosperity over a clean environment, and for others the opposite applies. It was determined that BIBD method would improve the accuracy of determining an organization's values priorities over the simple ranking method employed by other existing organizational surveys. Subsequent research also showed that problems associated with other values measurement issues would be minimized using the BIBD method.

The VAL-OR BIBD method naturally incorporates a ranking method to compare 21 different Cultural Values and 21 Operational Values. By this method of prioritizing all 21 values in both categories, those deemed most important emerge at the top of each list. From a practical point of view the survey was constructed to help organizational leaders understand the values expressed by employees in the context of all other values. Therefore, a forced-choice ranking system is most appropriate. Given that a ranking system is important, it would be very difficult to have multiple items expressing the same value. Not only would this be difficult for the person completing the instrument, the scoring and interpretation would be a theoretical and statistical nightmare. Therefore, a single item scale was chosen as most efficient and appropriate.

The BIBD method provided a means of determining how consistent each respondent was in ranking values across sets. It also allows for the possibility of ties to occur across sets. Finally, BIBD had the advantage of reducing the number of values being ranked to a manageable set. William James' (1890) early research found what Miller's (1956) later research confirmed, that limitations of immediate term memory make it difficult for most people to accurately attend to more than six or seven pieces of information at a time. This is one of the factors that made simple value ranking exercises less desirable from a measurement perspective.

After a comprehensive study of the Balanced Incomplete Block Design method (Cochran and Cox, 1957; Gulliksen and Tucker, 1959, 1961; Kendall, 1955; and Torgerson, 1958), Saunders and Donald A. Johnson, Ph.D., concluded that a “5-21” design, that relied upon the presentation of 21 values in blocks of 5, was the most appropriate BIBD method available for constructing the improved values survey. By mid 1994 two lists of 21 “Mission values” or superordinate goals and 21 “Operational values” or ways of achieving an organization’s Mission goals had been developed.

Krathwohl, et.al. (1964) defined the term value “. . .in its usual sense, that a thing, phenomenon, or behavior has worth.” What is of worth to an individual is both a part of the individual’s own valuing and the result of the slow process of social indoctrination that results in the individual’s acceptance of the value(s). Eventually the value or values come to form the criteria by which the individual’s own worth is judged.

Rokeach’s understanding and definition of values and value systems relied heavily on the prior work of American Sociologist Robin M. Williams, Jr. (1961). For Williams, values are:

“modes of organizing conduct - meaningful invested pattern principles that guide human action. They are real determinants of behavior, acting as the criteria by which goals (and means) are chosen among alternatives...Values and their hierarchical arrangements thus are observable as choices; they provide a means of studying all human action in a way that culture in its strict normative sense cannot. (p. 502)

For Morris (1951) a value is “the tendency or disposition of living beings to prefer one kind of object rather than another. . .such values may be called “operative values,” in that they must influence to some degree a course of action. Whereas for English and English 1958) a value is defined as:

“an abstract concept, often merely implicit, that defines for an individual or for a social unit what ends and means to an end are desirable. These abstract concepts of worth are usually not the result of the individual’s own valuing; they are social products that have been imposed on him and only slowly internalized, i.e., accepted and used as his own criteria of worth.”

Another important aspect of the concept of values is that values do not exist alone. They are part of a system or a hierarchy. A value system is an enduring set of beliefs about what is most important. An organizational value system is a set of Mission and Operational priorities. When organized into a hierarchy, values give us valuable information about what is most important to an organization. In conclusion, a complete assessment of organizational values must incorporate the idea that whatever values are measured, they are contained within a broader values system. The VALOR fundamentally takes this fact into account by measuring organizational values as part of a complete value system.

The developers of the VALOR have found that the definition of values, with origins and ties traced back to ideas of Aristotle, James, Jung, Krathwohl, Morris and countless others who studied, researched and theorized about the nature of values

constructs, remains very practical, comprehensive and complete. According to Rokeach (1973):

A value is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. A value system is an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance.

Values are multifaceted standards that guide our lives in a variety of ways. It is values that lead organizations to take particular positions on issues. Our values predispose us to favor one particular philosophical, political, or organizational ideology over another. They also are guidelines that determine how we present our organization to others externally.

The conceptualization of values as modes of conduct or, *instrumental* ends, or final, *terminal* ends, can be traced back to the ancient writings of Aristotle, who recognized that all action, human or organizational, aims toward some end. Aristotle conceived two distinct forms of ends. The first he called *instrumental* ends and described them as acts that are done as a means to some other ends. The second he called *intrinsic* ends, those that were done for their own sake.

Following Aristotle, and Allport's use of the terms, Butler (1957) identified two fundamental types of values:

Of course there is almost an infinite number and variety of values which do not have this status, but are relative to the human scene alone and have the same kind of transiency that human experience has. Some of these values are instrumental; eventually they are means to some other ends or to ultimate values. Some of them are terminal values, being enjoyed for what they are at the time without ever becoming means to any other end, or only indirectly being means to ultimate ends."

These values are associated with long-term goals or ultimate aspirations, and are those that organizations strive to maintain or achieve over the long-term. The Mission Values are the core of an organization's highest ambitions and are the essential foundations that guide and motivate individuals to achieve the organization's desired goals and mission. Mission Values are the "end" state; they are those things that organizations work to achieve or obtain. Mission Values differ from Operational Values because Mission Values are more difficult to define and put into daily practice.

Operational values are the underlying beliefs that can be carried out in everyday activities. These values are associated with short-term goals. By their very nature, the process of Operational value attainment is shorter in duration and easier to define or measure than Mission values. Operational values are the "means" to an "end." An organization may incorporate any of the 21 Operational Values to obtain one or more of the Mission values.

The VALOR Scoring Procedure

In the VALOR each value appears five times in unique combination with the other 20 values of its kind in blocks of five. There are 21 sets required; when multiplied by the number in each set (5) this produces 105 responses for both the Mission values and Operational values sets. The respondent ranks each of 21 sets from 1 to 5. Ranks for each occurrence of the value are summed; the maximum possible score is 25 and the minimum possible score is 5. The sum of rank scores for each value is subtracted from the maximum score of 25 and this difference is squared. A sum of squares is obtained (SSOBS).

To report the sum of ranks as equivalent to a “rank score,” a constant of 4 is subtracted from each. The highest possible rank score becomes 1 and the lowest 21. For example, if “Teamwork” is ranked first five times, it will have a rank sum of 5; subtracting 4 gives it a rank score of 1. If “Customer” is ranked last five times, it will have a rank sum of 25; subtracting 4 gives it a rank score of 21. So rather than the scores falling along a continuum from 5 to 25, scores now are reported from 1 to 21. Ties and missing gaps between scores are meaningful. If a list does not have a value with a rank score of 1, it means that the person did not rank any value of paramount importance every time it occurred. If three values have rank scores of 5, those values are assumed to be of equal importance to that person.

A ranking consistency coefficient, Z, is computed from the formula

$$Z = (1 - D/385) \times 100 \quad (\text{formula 3.1})$$

where D is the difference of the observed sum of squares from the maximum sum of squares:

$$D = (2870 - \text{SSOBS})/2 \quad (\text{formula 3.2}).$$

When the ranking is completely consistent (which only occurs when the test taker makes no logical mistakes in ranking across sets) the maximum sum of squares is achieved and the ranking consistency = 100%. Every time a “logical triad” occurs the observed sum of squares is reduced. A logical triad takes the form “value A is preferred to value B, value B is preferred to value C, but value C is preferred to value A.” The best reference for this scoring method and the “5-21” design is Cochran and Cox (1957).

A Ranking Consistency (RC) score is an overall measure of how consistent values ranking was in each set of values in the survey. There are two RCs, one for Mission Values and one for Operational Values. Each RC is interpreted separately. The RC can range from 0 to 100. Because the VALOR is not a test, the RC is not an indication of pass or fail. The RC is a suggestion of the reliability or dependability of value priorities from one situation to the next. 90 to 100 are reported as highly consistent, 80 to 89 clearly consistent, 70 to 79 somewhat consistent and 0 to 69 as less consistent. Generally speaking the higher the RC, the more consistent the individual was in the overall ranking process.

The Mission Values rank scores range from 1 to 21. A rank of “1” indicates that an individual considers the value to be the most important and a rank of “21” indicates that the value is the least important to the organization. The Operational Values rank

scores range from 1 to 21. A rank of "1" indicates that an individual considers the value to be the most important and a rank of "21" indicates that the value is the least important to the organization. It is rare for an individual to consistently rank all 21 values. It is common to have some ties and some gaps between rank scores.

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