

CHAPTER IV

INSTRUMENTS AND DESIGN OF THE STUDY

The present investigation involves inter-correlation, mediation, and regression-analysis of the responses obtained on the questionnaires used.

The Design of the Study:

Sample

This study is based on 200 engineers and supervisors randomly selected from five leading textile industries at Kanpur in India. The names of these industries are- J.K. Synthetics, Kawnpore Textile Mills, Elgin Mills (No. 1 and 2), Muir Cotton Mills and Kanpur Wollen Mills.

Data-collection

The data were collected on the relevant back-ground and psychological variables through the administration of five questionnaires namely Personal-orientation Inventory (POI), Personal opinion Scale, The work Environment Preference Schedule (WEPS), self-opinion scale and the questionnarire on the Background Information. The questionnaires were printed in English. Each subject was personally approached and after making sure that he followed the instructions, the questionnaire were administered to him.

The time span in the fulfillment of the each set of questionnaires ranged from two to two and a half hour.

Statistical Analysis

Scores on the questionnaires were inter-correlated by the Product Moment Method of correlation (Garrett, 1959, p.134). To substantiate the hypotheses, the regression-analysis (Garrett, 1959, p. 153) was applied. The hypotheses on background and organizational variables were further tested by the mediation analysis and the significance of correlational differences were calculated in terms of Z (Guilford, 1956).

Instruments

The following five questionnaires were used in the study:

1. Personal Orientation Inventory (POI)

The Personal Orientation Inventory has been developed by Shostrom (1966) to measure the concepts of self-actualization. The inventory consists of 150 two-choice comparative value and behavioral judgements. There are two basic subscales of the POI-Inner directed support and Time-scale. Besides these, there are ten sub-scales: self-actualizing values (SAV), Existentiality (Ex), Feeling reactivity (Fr), Spontaneity (S), Self-regard (Sr), Self-acceptance (Sa), Nature of Man constructive (NC), Synergy (Sy), Acceptance of Aggression (A) and Capacity for Intimate contact (C).

POI Scales:

1. Support Scale

The support scale measures the individual's inner-directedness and other-directedness. Inner-directed individuals live life guided by their own internal motivations. They are independent in what ever they undertake, obeying their inner voice. Their mode of reaction is inner, uninfluenced or little influenced by external pressures.

Other-directed persons are influenced mainly by authority figures and external forces. They are over-possessed by a feeling or anxiety lest ^{they} / should fluctuate the voices of authorities or peer group. They have an inclination to conform to others and their actions and thinking are in the direction what others approve. The ratio between inner-directedness and other-directedness is expressed as O/I.

2. The Time Scale

The Time-scale measures the time-competence and time-incompetence. Time-competence reflects the individual's orientation towards present. Time-competent persons do not perceive the present, past and future as separate entities but rather linked to each other in a meaningful continuum. They have a balanced conception of time wherein the present goals are viewed in the light of the past and the perspective of the future. On the contrary, the time-incompetent persons either live in the past or the future or both. They either brood over the past or get apprehensive of the future.

The scores for Time-scales are presented as the ratio of Time-competence to Time-incompetence. This ratio is expressed by the formula of TI/TC.

Complementary Scales:

1. Self-actualizing values (SAV)

This scale measures the extent to which an individual adopts and lives by the value of self-actualizing people. The self-actualizing values are "Being" or B-values, which refer to the ideal limits of human development, to the concepts of finality. A high score in this scale reflects that the individual adopts and lives by values of self-actualizing people and a low score refers to the rejection of values of self-actualizing people.

2. Existentiality (Ex)

It measures the degree of the person's ability in analyzing these values and principles in life with meaningful reasoning.

3. Feeling reactivity (Fr)

It measures the extent of sensitivity to one's own needs and feelings.

4. Spontaneity (S)

It reflects the individual's ability to express his thoughts and feelings in spontaneous manner.

5. Self-regard (Sr)

It reflects the individual's high self-worth.

6. Self-acceptance (Sa)

This scale measures the individual's ability to accept his weaknesses with a healthy attitude.

7. Nature of Manconstructive (NC)

It reflects the individual's perception of man as basically good.

8. Synergy (Sy)

It reflects the individual's ability to perceive opposites of life in a meaningful relationship.

9. Acceptance of Aggression (A)

It measures the individual's ability to accept aggression within one's self as natural.

10. Capacity for Intimate-contact (C)

It measures the individual's ability to relate with other human beings in a healthy and meaningful manner.

The validity of the POI has been established by a number of studies. In the initial validation study presented by Shostrom (1964), 18 prominent doctoral level psychologists nominated "self-actualized and "non-self-actualized" individuals completed the POI. Scale differences between these samples were significant at the .01 and .05 level of confidence for all but one of the sub-scales. Since the initial validation of POI, a

number of studies have been conducted that support the validity of the POI.

McClain (1970) correlated POI scores for a sample of counselor trainees with a composite rating of actualizing based on supervisor's ratings following a 9 week training program. Correlation of the ratings against POI scores ranged from .23 to .69 and reached significance for 11 out of 14 scales.

Price (1976) in a construct validity study of POI, compared pre-test scores on the POI taken immediately after a stressful situation with scores on the post-test taken two weeks after the removal of the stressful conditions. The changes in the mean scores on the sub-scales of the POI occurred to a statistically significant direction reflecting higher degree of self-actualization.

Knapp and Lessner's (1974) study of the self-actualization among the merchandising-oriented and craft-oriented entrepreneurs provided the validation of the POI.

Concurrent validity data, presenting correlations of the POI with other standardized measures of personality Inventory i.e. Comrey Personality Scales (CPS) q-sort scale and the Eysenck Personality Inventory (EPI) have been obtained.

Knapp and Comrey (1973), to examine the concurrent validity of the POI, made a study between the POI and emotional stability and obtained significant positive inter-correlations between POI and Comrey Personality Scale.

Knapp (1965) administered the POI and the Eysenck-Personality-Inventory (EPI) to his subjects and related the dimensions of extraversion and introversion and neuroticism stability to self-actualization. He found high neurotic group score significantly lower on all scales of the POI. Mattocks and Jew (1974) correlated the scores on the POI scales with the scores on the well-adjusted persons as obtained by the q-sort scale and obtained the high correlation between the two.

Fox, Knapp and Michael (1968) in a concurrent validity study of the POI assessed the self-actualization of psychiatric patients and found that psychiatrically hospitalized people scored lower on the POI than a relatively self-actualized group.

Dandes (1966) reported a multiple correlation between POI scales and the Minnesota Teacher Attitude Inventory in a sample of 128 teachers. He also correlated POI scales against other attitude and value scales e.g. California F-scale, the Dogmatism scale and a measure of liberalism obtained from an Inventory of Opinions on Educational Issues (L-C scale) and obtained highly significant correlations.

Shostrom and Knapp (1966) obtained significant POI correlations against the Depression (D) scale of the MMPI scales.

Distortion and Fakability of the POI have been examined in a number of studies. Braun and Faro (1969) administered POI to 4 student groups under standard instructions and then under conditions of faking. He concluded that unless subjects have

special information about the POI and self-actualization, the inventory shows an unexpected resistance to faking.

Warehime,, Robert and Foulds (1974) used the POI to evaluate self-actualization, the Marlowe-Crowne-social Desirability Scale (MCSD) to measure the tendency to create a favourable impression and Edward Social desirability scale (EDSD) to determine the tendency to endorse personal statements in a socially desirable directions. There was significant positive correlation between EDSD and POI and a negative correlation between MCSD and POI.

Fisher (1973) observed that felons could change their POI scores but that such changes were in a direction away from self-actualizing. With standard instructions, the obtained scores of Fisher's (1968) sample of 150 felons were significantly lower than normal subjects on eight of twelve POI scales which were lower yet than under conditions of standard instructions.

A study by Warehime and Foulds (1973) supported the hypothesis that if the individuals have the knowledge of the characteristics of self-actualized persons as defined by the POI and also the motivation to make a good impression they would distort their POI responses appreciably in the direction of self-actualizing persons. In that study POI scale scores were correlated with scores from a scale developed to measure the tendency to give socially desirable responses. A number of studies have demonstrated the sensitivity of the POI in measuring changes in self-actualization following encounter group experience.

Foulds and Hannigan (1976) observed in a study that the gestalt marathon workshop was an effective method for fostering psychological development. The findings revealed a significant positive pre-post change in the experimental group mean score on the over all measure of self-actualization.

Guinan and Foulds' (1970) study showed that pre-test and post-test results of POI indicated significant changes in the mean scores of the experimental group on the following scales: Inner-directedness, Existentiality, Feeling-reactivity, spontaneity, self-acceptance, Acceptance of Agression and Capacity for Intimate contact.

Culbert, Clark and Bobele (1968) studied the interaction effects of initial level of self-actualization and sensitivity training as reflected in pre-and post-treatment POI administration. Results indicated that for the beginning low self-actualizers the training resulted in significantly higher POI scores on four scales, Inner-Directedness, spontaneity, Synergy and capacity for Intimate contact.

Young and Jacobson (1970) reported significant increases in the self-actualizing value scale.

Trueblood and McHolland (1971) have reported on the effects of the "Human Potential" group process in helping students to become more self-actualizing.

Seeman, Nidich and Banta (1972) to study the effect of the practice of trans-cendental meditation on the subject's psychological state, observed that for 6 of the 12 POI variables there were differences between experimental and control subjects

in the direction of "predicted self-actualization".

Hannigon (1976) found in a study that both the 16 hr. and the 24 hour. marathon gestalt workshop appeared to foster the increased self-actualization of students.

Thus the above review of Personal-Orientation-Inventory makes it apparent that the instrument is well adjusted for research application in the study of theoretical constructs of self-actualization as well as for use in the clinical and therapeutic situation.

Personal Opinion Scale (Dogmatism Scale)

The factor of dogmatism is measured by the dogmatism scale, which has been named the personal opinion^{scale} to measure the individual differences in the openness or closedness of belief-system. The scale was devised by Rokeach (1960). This scale is based on the assumptions that if respondents strongly agree with the statements given in a scale, it would indicate that they possess one extreme of particular characteristics being tapped, and if they strongly disagree, they possess the opposite extreme. The present scale (Form E) consists of forty items with a reported parallel test-retest reliability of .81 for an English College II sample and .78 for an English worker sample.

Samples at Michigan State University, Ohio State University and at VA domiciliary yielded test-retest reliability coefficients ranging from .78 to .93. The forty items contained

in the fifty revision (form E) of the dogmatism scale cover a wide range of content area. Rokeach (1960) comments on the items of scale, "they typically show that high and low dogmatic subjects differ consistently and in a statistically significant manner on the great majority of items (p. 90).

The validity of the scale was established by the "Method of Known Groups". The scoring categories follow a continuum ranging from 'completely disagree' to 'completely agree' on a six point scale.

3. The Work Environment Preference Schedule

The factor of bureaucratic-orientation is measured by the Work Environment Preference Schedule, devised by Gordon (1968-a). He developed a measure of this construct, using the original schema of Weber (1946), which describes the common denominator characteristics of bureaucratic organizations.

The item-development of the questionnaire is based on five categories parallel to those of Weber but which describes individual rather than organizational characteristics. These categories are as follows:

1. Self-subordination

A willingness to accept the wishes of authorities and act according to the decisions made by them.

2. Compartmentalization

Complete confidence in the superior's judgement and a tendency to restrict oneself to one's own area of specialization.

3. Impersonalization

An inclination and preference towards impersonal relationships.

4. Rule-conformity

A desire for the security provided by rules, regulations and standard operating procedures.

5. Traditionalism

A general tendency to identify with the organization or in-group norm.

The above schema served as a guide for item development. Each item was worded in a manner that agreement with it would reflect acceptance of the bureaucratic norm. This schedule consists of twenty-four Likert type items with five choices of responses, "strongly agree", "Agree", "Undecided", "Disagree" and "strongly disagree".

The WEPS has a coefficient of reliability of .90 and test-retest reliability of .65.

Validity r's range from .20 to .67.

Merton (1940) Weber (1946) and others have proposed that the individuals with a bureaucratic bent of mind would be easily adapted to the work environments represented by the bureaucratic organizational model. Therefore, significant relationships of WEPS with measures of such characteristics would be expected. Correlations between the WEPS scores and the values

measured by the survey of Inter personal values (Gordon, 1960) and Survey of Personal values (Gordon, 1967) had been obtained for five adult samples. Highly significant correlations were obtained between the WEPS and four of the value scales, in a positive direction with conformity and orderliness and in a negative direction with independence and variety.

Further, significant relationships were noted for six other value dimensions for at least two samples. Positively with Recognition, Practical Mindedness and Goal orientation and negatively with Benevolence, Leadership and Achievement.

Significant correlations were obtained when WEPS was correlated with certain other personality scales. The most pronounced relationships were obtained with Authoritarianism, as measured by the California F scale (Adorno et.al. 1950) and Rokeach's (1960) measure of Dogmatism, both supporting the bureaucratic theory.

High scores on WEPS were also associated with Religious conservatism as measured by the brief Couch (1960) scale and with Couch's (1960) measure of Internal-External Control.

Therefore, the evidence so far available suggests that WEPS has been successfully developed and is predictive of the individual's adaptability to this class of organization.

4. Self-Opinion Scale

This is a twenty-one item questionnaire purported to measure the individuals' attitude towards change i.e. whether they accept it or reject it. This questionnaire was constructed in

a four point scale with four categories; strongly agree, Agree, Disagree and Strongly disagree. The questionnaire was statistically analyzed on the basis of inter-item correlations and oblique factor-analysis. The original questionnaire contained forty items. The relevance of the items was determined on the basis of the judgements of a panel of judges. Twenty three items were obtained relevant.

The twenty three item questionnaire was administered to the two hundred engineers and supervisors of the five textile factories at Kanpur. Inter-item correlations and correlations with total score were obtained. Those items which reflected low correlations with total score were dropped out from the questionnaire. Twenty-one items were retained.

These twenty-one items were further factor-analyzed. On the basis of oblique factor analysis four factors emerged namely, 'Fear of the disorder', 'Acceptance of change as the freedom for growth', 'Fear of the unknown' and 'Fear of insecurity'.

5. Questionnaire on Background Information

This questionnaire includes questions on personal information and background variables.

1. Age
2. Marital Status
3. Number of brothers and sisters
4. Order of birth
5. Educational qualification

6. Position in the organizational hierarchy
7. Levels of superior positions that exist above the position
8. Levels of subordinate positions that exist below the position
9. Length of service
10. Previous experience
11. Income