Chapter - V

METHOD
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DESIGN

The present study was aimed at studying the Role Efficacy of the teachers of polytechnics in the northern part of India in relation to various personal and organisational variables. The variables chosen were Personality, Motivation in Role in Role, Motivational Climate of Organisation, Quality of Working Life, Organisational Role Stress and Occupational Stress.

For determining Role Efficacy, Role Efficacy Scale (RES), (Pareek, 1993) having ten dimensions was used. Two inventories of personality viz., Personality Questionnaire - Revised (EPQ - R) and Personality Stress Questionnaire (PSQ) have been taken.

For measuring Eysenckian Personality Dimensions viz., Extraversion, Psychoticism, Neuroticism and Lie scale (Social Desirability); Eysenck Personality Questionnaire - Revised (EPQ-R) by Eysenck et al. (1985) has been used.

For determining behaviour in response to stress, Personality Stress Questionnaire (PSQ) by Grossarth- Matick and Eysenck (1990) measuring six types of behaviour viz., Type I (Cancer Proneness), Type II (Coronary Heart Disease Proneness), Type III (Psychopathic
Behaviour Proneness), Type IV (Healthy Orientation), Type V (Depression Proneness) and Type VI (Drug Addiction Proneness) has been used.

Five inventories have been used to measure organisational variables viz., Motivational Analysis of Organisations (Role) Instrument (MAO - R), Motivational Analysis of Organisations (Climate) instrument (MAO - C), Quality of Working Life Inventory (QWL), Organisational Role Stress Scale (ORS) and Occupational Stress Index Scale (OSI).

**Motivation in role** was studied by using Motivational Analysis of Organisations (Role) Instrument (MAO - R) by Pareek (1993) having five dimensions (psychological needs in a role) viz., Achievement in Role, Power in Role, Control in Role, Affiliation in Role, Extension in Role. In additions to this Role Satisfaction was determined by using desired and present levels on all the five needs of this instrument.

For determining **motivational climate** of Organisation, Motivational Analysis of Organisations (Climate) Instrument (MAO - C) by Pareek (1989) having five types viz; Achievement Climate, Extension Climate, Control Climate, Dependency Climate and Affiliation Climate has been used.

Perception of **quality of working life** was measured with the help of Quality of Working Life Inventory (QWL) constructed by Sinha and Sayeed (1980) having seventeen dimensions.
The organisational role stress has been studied through Organisational Role Stress Scale (ORS) by Pareek (1993) having ten dimensions.

For determining occupational stress, Occupational Stress Index Scale (OSI) by Srivastava and Singh (1984) having twelve dimensions has been used.

SAMPLE

The sample for the present study comprised of 200 teachers of polytechnics of northern part of India. These teachers were from the states of Punjab, Haryana, Himachal Pradesh, Uttar Pradesh and Union Territory of Chandigarh. The sample has been randomly selected from various polytechnics. Further total sample was divided into two groups. Group I comprised of teachers in the age group ranging from 20 to 38 years, (n=100) while Group II comprised of teachers in the age group ranging from 39 to 57 years (n=100).

The mean age of Group I was 30.72 years. Their mean teaching experience was 5.62 years. The mean age of Group II was 49.06 years. Their mean teaching experience was 23.75 years.
The following standardized tests have been used in the present study:

1. Role Efficacy Scale (RES) (Pareek, 1993)
2. Eysenck’s Personality Questionnaire - Revised EPQ-R (Eysenck et al., 1985)
6. Quality of Working Life Inventory (QWL) (Sinha & Sayeed, 1980).
7. Organisational Role Stress Scale (ORS) (Pareek, 1993).
8. Occupational Stress Index Scale (OSI) scale (Srivastava and Singh, 1984).

1. **ROLE EFFICACY SCALE (RES)** (Pareek, 1993)

In the present study, the Role Efficacy (RES) Scale developed by Pareek (1993) was selected to obtain information about Role Efficacy of teachers of Polytechnics.

Role Efficacy Scale measures 10 dimensions viz. Centrality, Self Role Integration, Proactivity, Creativity, Helping Relations, Inter-Role Linkage, Super-ordination, Influence, Personal Growth and
Confrontation. More these dimensions are present in a role, the higher the efficacy of that role is likely to be.

Each dimension has two triad statements. Each statement has sets of three statements(a, b, c). Subject was asked to check the one(a, b or c) that most accurately describes his own experience in his organisational role.

Each of the three statements are preweighted. A score of +2 was assigned for useful statement, and score of -1 was assigned for negative statement. On each dimension, thus, a respondent could score -2 to 4. Total of score on the 10 dimensions could range between -20 to 40 (as per manual).

Scoring of different dimensions of role efficacy is found from scoring sheet based on marking of tick by subject on 20 questions of Role Efficacy Scale. Its total is also calculated.

From this Role Efficacy Index is calculated by using the formula;

\[
\text{Role Efficacy Index} = \frac{\text{Total Score} + 20}{60} \times 100
\]

The Role Efficacy Index for an individual gives a percentage of his potential effectiveness in his organisational role. A high percentage indicates that you perceive that in your role, you have a great deal of...
opportunity to be effective. Satisfactory reliability and high validity has been reported for the Role Efficacy Scale by Sen (1982) and Sayeed (1985) respectively. Sen (1982) reported a retest reliability of 0.68 for the test. Sen (1982) has also reported high internal consistency of the test.

Sayeed (1985) has reported range of item-total correlation for 20 Role Efficacy Scale items for a total sample of 658 managers and for 11 organisations individually. The alpha coefficients for the mean corrected item-total correlation of the 11 organisations ranged from 0.71 to 0.85. Pandey (1992) and Sayeed (1992) also reported that RES has adequate psychometric properties. The Role Efficacy Scale has been successfully used in India by Sen (1982), Sharma and Sharma (1984), Shingla (1985), Gupta and Khandelwal (1988, a & b), Sharma (1988), Sayeed (1985, 1992), Deo (1993), Pandey (1992, 1993, 1994), Jayshree and Sadri (1999) and Pethe & Chaudhry (2000).

2. EYSENCK’S PERSONALITY QUESTIONNAIRE-REVISED (EPQ - R) (Eysenck et al., 1985)

In the present study, EPQ-R developed by (Eysenck et al., 1985) was used. The Eysenck Personality Questionnaire was originally constructed by Eysenck and Eysenck (1975) to measure. Extraversion (E), Neuroticism (N), and Psychoticism (P). It also included Lie (Social Desirability) scale.
Extraversion was described by Eysenck (1968) "as outgoing, uninhibited, impulsive behaviour with sociable tendencies and Introversion as controlled and responsible behaviour. A typical high scorer on Neuroticism was described as an anxious, over responsive worrying individual who is moody and frequently depressed. A high Psychoticism scorer may be described as troublesome, non communicative, not fitting anywhere, solitary and not caring for people. The Lie (Social Desirability) high scorer is variously described as "a desire to conform to social norms" (Edwards & Heathers, 1962). Eysenck and Eysenck (1964) concluded that it did successfully identify the individual's 'faking good' tendency.

The scale was revised by Eysenck et al.(1985) to improve the psychometric weaknesses of the Psychoticism scale. The revised version of the scale consists of one hundred dichotomously responded items: thirty two items for the Psychoticism scale, twenty three for Extraversion scale, twenty four Neuroticism scale and twenty one for the Lie (Social Desirability) scale.

The alpha reliabilities for the revised scale have been found to be as follows:

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3. PERSONALITY STRESS QUESTIONNAIRE (PSQ)
   (Grossarth-Maticek & Eysenck, 1990)

In the present study the Personality Stress Questionnaire (PSQ) developed by Grossarth-Maticek & Eysenck (1990) has been used. PSQ measures behaviour of people in response to stress. It measures six types of behaviour viz.: 

**Type I** - is defined by a conformist dependency on a withdrawing object: A Type I person tries permanently to approach highly valued targets. He is prone to develop cancer.

**Type II** - in contrast is defined by a conformist dependency on a disturbing object. A Type II person tries fruitlessly to escape or emancipate himself from a person or an object which is emotionally important for him. His or her behaviour is very rigid and often depressive. This type is prone to Coronary heart disease.

**Type III** - is described by a non-conformist dependency on an object which is both withdrawing and disturbing. Eysenck
supposes that this type may be related to hysterical behaviour.

Type IV - is characterized by autonomy. This Type is a healthy type.

Type V - shows rational and anti-emotional tendencies and is prone to endogenous depression and cancer.

Type VI - is characterized by anti-social and possibly psychopathic behaviour.

The inventory contains 70 questions. This inventory has the required adequate reliability and validity. The test - retest correlation has been reported to be higher than 0.80.


4. MOTIVATIONAL ANALYSIS OF ORGANISATIONS - ROLE INSTRUMENT (MAO-R) (Pareek, 1993)

In the present study, the Motivational Analysis of organisations (Role), (MAO-R) scale developed by Pareek (1993) has been used to obtain information about psychological needs provided in a role of polytechnic teachers.
Five main psychological needs present in the role are measured.

They are:

i) Achievement: The need to excel, to take up challenges to do unique things

ii) Power or Influence: The need to make impact on people and events

iii) Control: The need to direct and control people

iv) Affiliation: The need to establish close personal relations

v) Extension: The need to relate to others, help them, serve a larger cause

The scale comprises of twenty five items/statements. Each psychological need is measured by scoring on five items/statements. Based on the opportunity provided by role in organisation subject is asked to indicate his response on each statement out of the following response categories:

i) No opportunity

ii) Very little

iii) Some

iv) Quite a good deal

v) a great deal

The responses across in the answer sheet are added to give scores on five needs, in the same order.
Test-retest reliability was found by readministering the instrument to group of fifty persons after an interval of six weeks. The coefficient of correlation ranged between 0.40 and 0.70 (significant at .001 level). This shows high stability of the instrument.

The subject answers both for the existing opportunity in the role, and the desired level. The gap between desired and the present level on all the five needs, helps to find out ways and means for narrowing this. It also gives idea of role satisfaction level of different motivation in roles.

5. MOTIVATIONAL ANALYSIS OF ORGANISATIONS-(CLIMATE) INSTRUMENT (MAO-C) (Pareek, 1993)

In the present study, the Motivational Analysis or Organisations (Climate), (MAO-C) developed by Pareek (1989) was used for studying organisational climate and was specifically with regard to motivation. This instrument employs twelve dimensions of organisational climate and six motives.

Six motives, connected with organisation climate out of which one or more may be present in organisation are Achievement, Affiliation, Expert Influence, Control, Extension and Dependency. These motives imply the following characteristics:
(i) **Achievement**: This motive is characterized by concern for excellence, competition in terms of standards set by others or by oneself, the setting of challenging goals for oneself, awareness of the obstacles that might be encountered in attempting to achieve these goals & persistence in trying alternative paths to one’s goals.

(ii) **Affiliation**: Affiliation is characterized by a concern for establishing and maintaining close, personal relationships; an emphasis on friendship; and a tendency to express one’s emotions.

(iii) **Expert Influence**: This motive is characterized by a concern for making an impact on others, a desire to make people do what one thinks is right, and an urge to change situation and develop people.

(iv) **Control**: Control is characterized by concern for others; interest in superordinate goals; and an urge to monitor events and to take corrective action when needed and a need to display personal power.

(v) **Extension**: Extension is characterized by concern for others; interest in superordinate goals; and an urge to be relevant and useful to large groups including society.
(vi) **Dependency**: This motive is characterized by a desire for the assistance of others in developing oneself; a need to check with significant others (those who are more knowledgeable or have higher status, experts, close associated, and so on), a tendency to submit idea or proposals for approval, an urge to maintain a relationship based on the other person's approval.

Twelve processes or dimensions of organisational climate related specifically to motivation are:

i) Orientation  
ii) Interpersonal relationships  
iii) Supervision  
iv) Problem management  
v) Management of mistakes  
vi) Conflict management  
vii) Communication  
viii) Decision making  
ix) Trust  
x) Management of rewards  
xi) Risk taking  
xii) Innovation and Change

MAO-C consists of twelve categories, each of which include six statements, each of the twelve categories corresponds to one of the
twelve climatic dimensions, and each of the six statements represents one of the six motives. Respondents work individually to rank order the six statements within each separate category according to their perceptions of how much each statement is like the situation in their organisation. The retest reliability of the MAO-C has been reported by Sen (1982) and Surti (1983).


6. QUALITY OF WORKING LIFE INVENTORY (QWL)
(Sinha and Sayeed, 1980)

In the present study, the Quality of Working Life (QWL) Inventory constructed by Sinha and Sayeed (1980) has been used. The QWL Inventory is a scale having seventeen dimensions to measure various aspects of working life. In all, there are eighty five items in the inventory. The seventeen dimensions of QWL and their operational definitions are as follows:

i) Economic Benefits (EB): Receiving adequate monetary income and financial rewards

ii) Physical Working Conditions (PWC): Conditions affecting physical comfort and convenience on and at the job.
iii) Mental State (MS): Feeling good Vs. feeling of depression or being upset at work.


v) Advancement on Merit (AM): The extent to which rewards and punishment are based on merit.

vi) Effect on Personal Life (EPL): Effect of job on Personal life. The hangover effect on the individual which may be positive or negative.

vii) Union Management Relations (UMR): The relationship between union and management and their consideration of each other’s point of view.

viii) Self Respect (SR): The feeling of being treated as an adult with respect and due dignity.

ix) Supervisory Relationship (RS): The relationship with the supervisor and mutual understanding.

x) Intra - Group Relations (IGR): The way workers in a group interact.
xi) Sense of Achievement Vs. Apathy (A): The workers concern and ambition for work.

xii) Confidence in Management (CM): Beliefs that the management is aware of and concerned about worker's problems and interests.

xiii) Meaningful Development (MD): Opportunity to learn more and apply skills and abilities meaningfully and in a challenging way.

xiv) Control, Influence and Participation (CIP): The extent to which workers are involved in decision making, their influence and control.

xv) Employee Commitment (EC): Loyalty to organisation and concern for its future.

xvi) General Life Satisfaction (GLS): Fulfillment of 'Life' needs apart from the work situation, i.e. in family, in society and so on.

xvii) Organisational Climate (OC): The organisation's outlook and approach in the interest of the workers for the betterment of the industry.

The subjects' task was to assess on a seven point scale for each item the extent to which a particular feature/characteristic was present.
in his/her job situation. The summation of the scores on all the items for a particular dimension is done in order to find out the presence of that dimension of quality of working life in the respondent's organisation. A high score on each dimension of quality of working life indicates a positive perception of quality of working life (QWL).

The alpha reliability of the inventory was found to be 0.97 (Sinha and Sayeed, 1980).


7. ORGANISATIONAL ROLE STRESS SCALE (ORS) (Pareek, 1993)

In the present study, the Organisational Role Stress (ORS) Scale reported in Pareek (1993) has been used to measure organisational role stress. In relation to organisational roles, the following ten stressors are measured by the scale:

(i) Self-Role Distance (SRD)
(ii) Inter-Role Distance (IRD)
(iii) Role Stagnation (RST)
(iv) Role Isolation (RI)
(v) Role Ambiguity (RA)
(vi) Role Expectation Conflict (REC)
The ORS Scale contains five items for each role stress (a total of 50 statements), it uses a 5-point scale from (0 to 4). Thus, the total scores on each role stress range from 0 to 20.

The respondent was asked to assign one out of following:

0  Never or rarely felt
1  Occasionally felt
2  Sometimes felt
3  Frequently felt
4  Very frequently or always feel this way

To get the total scores for each role stress, the rating is totaled horizontally (for five items). Thus the amount of different role stresses experienced by a respondent can be determined from this.

Sen (1982) calculated the test – retest reliability for a group of 500 bank employees after an interval of 8 weeks. These ranged from 0.37 to 0.73 for the various factors of stress. Pareek (1982) reported reliability for different role stresses and the total stress.

8. OCCUPATIONAL STRESS INDEX SCALE (OSI)  
(Srivastava & Singh, 1984)

In the present study the Occupational Stress Index (OSI) developed by Srivastava & Singh (1984) has been used.


The scale consists of 46 items out of these 28 are true keyed and rest 18 are false keyed. The subject's task was to assess on a five point scale for each item the extent to which a particular feature/characteristic was present in his/her job situation. Based on the response of the subject on different type of items in various sub-scales of OSI, their values are found. The total value using different patterns of scoring for true & false keyed items gives Occupational Stress Index.
The reliability index ascertained by split half (odd even) method and Cronbach's alpha coefficient for the scale as a whole were found to be .93 and .90 respectively. The reliability indices of the 12 Sub-scales were computed by the (split half) method varies from 0.45 to 0.84 (Srivastava and Singh, 1984).

The scale has been successfully used in India by many researchers viz., Savneet (1990), Bhatia (1993) & Saini (1998).

INSTRUCTIONS FOR THE QUESTIONNAIRES

The instructions for each test were printed on each test. They were:

1. Instructions for Role Efficacy Scale (RES)

Instructions for Role Efficacy Scale (RES) were:

In each of the following sets of three statements, check the one (a, b or c) that most accurately describes your own experience in your organisational role. You must choose one statement in each set.

2. Instructions for Eysenck's Personality Questionnaire (EPQ-R)

Instructions for the EPQ-R were: "Please answer each question by putting a circle around the ‘Yes’ or ‘No’ following the question. There are no right or wrong answers and no trick questions. Work
quickly and do not think too long about the exact meaning of the questions. Please check that you have answered all the questions.

3. **Instructions for Personality Stress Questionnaire (PSQ)**

   The instructions for this test were:

   Please respond sincerely to these questions by tick marking your answer. There are no right or wrong answers.

4. **Instructions for Motivational Analysis of Organisations (Role), Instrument (MAO-R)**

   Instructions for completing MAO-R Instrument were

   Your role in the polytechnic may provide you with opportunities for various matters in different degrees. Some of these dimensions are listed in MAO-R. Read each statement carefully. Then indicate under ‘P’ how much opportunity does your role in the organisation provide for the dimension and under ‘D’ how much opportunity you would like to have for the dimension. Use the following numbers to indicate your reply:

   1. Means about no opportunity
   2. Very little
   3. Some
   4. Quite a good deal
   5. A great deal
5. Instruction for Motivational Analysis of Organisations (Climate), Instrument (MAO-C)

Instruction for the MAO-C were:

Completing the inventory will allow you to evaluate the climate or culture of your organization (or your unit or department, if the administration of this inventory instructs you to interpret the inventory in this way). Below are twelve categories representing twelve dimensions of organizational climate, and within each category are six statements. You are to rank the statements in each category from 6 (most like the situation in your organization or unit) to 1 (least like the situation in your organization or unit). Do not get the same rank to more than one statement.

5. Instructions for the Quality of Working Life Inventory (QWL)

Instructions for the Quality of Working Life Inventory (QWL) were:

"Given ahead are some statements and questions about certain characteristics related to your work and working conditions. Please assign weightage to these in terms of how much of these are present in your job. On the right side of each item/question/statement. You will find a scale which will describe your views/feelings in terms of numerical values. The scale is from 1 to 7. All you have to do is to rate
on the seven-point scale on a continuum from minimum 1 to maximum 7. The number 4 stands for average. Thus, in case of all items in the section, your agreement or disagreement, satisfaction or dissatisfaction and your feelings positive or negative have to be answered from a minimum 1 to maximum 7 to give your judgements to each and every items as specified.

Please remember again your views, opinions and feelings are wanted and not those of others, so do not consult others. Your response will be kept confidential. Now, go ahead, read carefully the items and give your frank answers. Kindly do not omit any item.

7. **Instructions for Organisational Role Stress Scale (ORS)**

Instruction for Organisational Role Stress Scale (ORS) were:

Please do not write anything on these pages. Responses should be given on a separate answer given with the scale.

People have different feelings about their roles. Statements describing some much feelings are given below. Use the given answer sheet to write your responses. Read each statement and indicate in space against the corresponding number in the answer sheet, how often you have the feeling expressed in the statement in relation to your role in your organization. Use the number given below to indicate your own feelings.
If you find that the category to be used in answering does not adequately indicate your own feelings, use the one which is closest to the way you feel. Do not leave any item unanswered. Answer the items in the order given below:

Write 0 if you never or rarely feel this way.
Write 1 if you occasionally (a few times) feel this way.
Write 2 if you sometimes feel this way.
Write 3 if you frequently feel this way.
Write 4 if you very frequently or always feel this way.

8. Instructions for Occupational Stress Index Scale (OSI)

The instructions for the scale were:

This questionnaire is meant for Psychological investigation. The questionnaire consists of a number of statements that employees sometimes feel or say about various components of their jobs. You are required to use the following "Five point scale" to indicate the extent to which you agree with each statement to describe your own job and the experience or feeling about your job:

Strongly disagree (1)
Disagree (2)
Undecided (3)
Agree (4)
Strongly agree (5)
For example, if you strongly agree with the following in the context of your job, put '5' in the box against it.

"I have to do such work as ought to be done by others".

In case you strongly disagree with the above statement put (1) in place of '5' and so on.

Give your response frankly. It will be kept confidential. Kindly answer all questions.

PROCEDURE OF DATA COLLECTION

Directors of Technical Education of Haryana, Punjab, Himachal Pradesh, U.P., Rajasthan & Chandigarh(UT) were personally contacted and explained the significance of the present study in improving different aspects of Polytechnic System. They were requested to issue instructions to Principal of polytechnics for providing cooperation to the researcher in doing this study.

The booklet of tests with detailed information of the purpose of the research study was distributed to the target population. The respondents were administered the tests. They were assured that their identity and information revealed would be kept strictly confidential and used for research only. The subjects were requested to give honest and truthful replies.
SCORING

The scoring for various tests viz. Role Efficacy Scale (RES), Eysenck Personality Questionnaire (EPQ-R), Personality Stress Questionnaire (PSQ), Motivational Analysis of Organisations - Role Instrument (MAO-R), Motivational Analysis of Organisation - Climate Instrument (MQO-C), Quality of Working Life Inventory (QWL), Organisational Role Stress Scale (ORS), Occupational Stress Index Scale (OSI) was done as per the instructions given in their respective manuals. The scores obtained through administration and scoring of various tools were then tabulated and subjected to various statistical analysis viz., t-ratios; correlational analysis; and regression analysis.