For a meaningful outcome of any research study, it is extremely important to choose the instruments and research methodology carefully. Research design is the backbone of any study. The instruments for the study are not easy to design and may have many flaws. The format and questionnaire should not only be friendly so as to evoke immediate response but should also take care not to allow the respondent to be pushed in a biased manner; nor it should feedback the answers on it’s own. The instruments should also have sequential flow for the respondent to relate it to his/her own circumstances and should be simple enough for all to understand before choosing the responses. The validity and effectiveness of the instruments must be assessed on a portion of the population to be included in the study.

Instruments that are time tested and are designed keeping in mind the psyche of the respondents are best suited for a research study. A mix of two or more instruments that can capture the responses with an unbiased view, should be selected so as to make either the hypothesis or alternate hypothesis emerge clearly. The other advantage of time tested instruments is that the validity check is not needed. All one needs to do is to test it on a sample of population so as to find whether or not it is suiting the requirement and shall be able to help the research move towards a conclusive state. Keeping the above in mind the three instruments used for the purpose of conducting research are from a book titled: Training Instruments in HRD and OD by Prof Udai Pareek.

The brief description of each instruments is being given in following pages.

**Interpersonal Needs: Interpersonal Needs Inventory (IPNI)**

Interpersonal as the word suggests means relations between people with each individual taking account of the other. The behaviour which in nutshell is the feelings and the actions, is affected by the other or determined by expectations of another. The interpersonal need gets satisfied only by a satisfactory relationship with another individual.
The three needs as defined by Schutz are:

**Inclusion:** The extent to which we include ourselves with others

**Control:** The extent to which we control other’s actions or desire them to guide us

**Affection:** The extent to which we express affection to others and desire that from them

In order to work towards simplification of typology of interpersonal needs Schutz stressed that various other needs suggested by writers and researchers were included in these three needs. But there are some aspects of each of these three needs which need independent status as needs. For example when we look at the need for Inclusion, it if found that in addition to a sheer social need of interaction and inclusion in a group, the individual has a basic need of recognition by others and also giving recognition to other people. Likewise the need for control or the power need is also not simple. In addition to the need to control (which amounts to directing and restricting behaviours and matters of other people) there is a need to influence (making an impact on others). The well-known affiliation need is what Schutz called affection need, which apparently is the need for closer personal relationships. The concern a person has for others (reflected in the need to be useful, serve and sacrifice for others) is a need which is distinctly different from the need for close personal relationships and therefore the need of extension is what explains the concern for others including person, society or country.

Expanding the typology of the three basic needs, therefore makes more sense. The six basic needs used to develop a theory and instruments for interpersonal relationships are:

- The need for interaction : Belonging, Recognition
- The need for relationship : Affiliation, Extension
- The need for power : Control, Influence

**The instrument - IPNI**

The Interpersonal Needs Inventory (IPNI) was developed for the purpose of measuring six interpersonal needs. For each of the need, five items are included and the instrument is self-
administered. Respondents rate six items on a 6-point scale: never (or none) to usually (or always). For recording the score of the inventory an extension of the answer sheet is used.

Following steps are taken for scoring:

1. Five ratings are added in each row. The total ranges from 5 to 30.
2. These totals of each row are converted into 0 to 100 scale, using the following formula:
   \[
   \text{Total of five rows (} - \text{)} \times 4.
   \]

Schutz’s terminology of ‘expressed’ and ‘wanted’ are termed as ‘Giving’ (G) and ‘Receiving’ (R) in the IPNI instrument.

The set of six Inter personal needs – giving and receiving and the Behavioural Types based on the total scores obtained for the category, are as follows:

Table 1: IPNI Scores

<table>
<thead>
<tr>
<th>NEEDS</th>
<th>HIGH</th>
<th>LOW</th>
<th>MEDIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give Belonging (BG)</td>
<td>Over-social</td>
<td>Under-social</td>
<td>Social</td>
</tr>
<tr>
<td>Receive Belonging (BR)</td>
<td>Interaction-avid</td>
<td>Interaction-shy</td>
<td>Social-responsive</td>
</tr>
<tr>
<td>Give Affiliation (AG)</td>
<td>Over-personal</td>
<td>Reserved</td>
<td>Friendly</td>
</tr>
<tr>
<td>Receive Affiliation (AR)</td>
<td>intimacy-avid</td>
<td>Intimacy-shy</td>
<td>Intimacy-responsive</td>
</tr>
<tr>
<td>Give Extension (EG)</td>
<td>Over-considerate</td>
<td>Unconcerned</td>
<td>Caring</td>
</tr>
<tr>
<td>Receive Extension (ER)</td>
<td>Care-avid</td>
<td>Care-shy</td>
<td>Care-responsive</td>
</tr>
<tr>
<td>Give Recognition (RG)</td>
<td>Ingratiating</td>
<td>Unappreciative</td>
<td>Gracious</td>
</tr>
<tr>
<td>Receive Recognition (RR)</td>
<td>visibility-avid</td>
<td>visibility-shy</td>
<td>Appreciative</td>
</tr>
<tr>
<td>Give Control (CG)</td>
<td>Autocrat</td>
<td>Abdicate</td>
<td>Democrat</td>
</tr>
<tr>
<td>Receive Control (CR)</td>
<td>Dependent</td>
<td>Counter-dependent</td>
<td>Inter-dependent</td>
</tr>
<tr>
<td>Give Influence (IG)</td>
<td>Influence-avid</td>
<td>Influence-shy</td>
<td>Influential</td>
</tr>
<tr>
<td>Receive Influence (IR)</td>
<td>Over-amenable</td>
<td>Unreceptive</td>
<td>Receptive</td>
</tr>
</tbody>
</table>

Organisational Role Stress- ORS

The position occupied by someone in a social system, is called the role. It can be defined as the function one performs in response to the expectations of the majority members of a social system, and one’s own expectations from that position or office. Role and office (or positions) are two different concepts, though two sides of the same coin. According to Katz and Kahn “office is essentially a relational concept, defining each position in terms of its relationship to
others and to the system as a whole.” While office is relation and power–related concept, role is an obligational concept. Position or office can be compared to Authority and role can be compared to Responsibility.

A role is defined only with the expectations of the role senders, including the role occupant. The position of an administrative manager may be formed in an organization, but his role will be defined by the expectations (stated or unstated) that different persons have from the administrative manager, and the expectations that he, in turn, has from the role. So the role gets defined in each system by the role senders, including the role occupant. Each individual occupies and plays several roles. A person can be a son, a father, a salesperson, a member of a club, a member of a voluntary organization, and so on. All these roles constitute the role space of that person. At the centre of the role space is the self. In a given setup an individual could be having a focal role.

Organisational Role Stress
Stress fills our lives in the modern age. As organizations strive to become more competitive and complex, the scope for stress increases. Not having complete control over what happens in their lives, makes people experience stress. There being no escape from stress in modern life, we need to find ways of using stress productively, and reducing dysfunctional stress. Each individual occupies and plays several roles. A person can be a son, a father, a salesperson, a member of a club, a member of a voluntary organization, and so on. All these roles constitute the role space of that person. At the centre of the role space is the self. A number of terms that are synonymous with stress, or similar in meaning, have been used. To avoid confusion following terms have been used: stressor for stimuli that induce stress; stress for the affective (emotional) part; symptoms for the physiological, behavioural and conceptual responses or changes; and coping for any behavior that deals with the emotional component in the experience of incongruence, i.e. stress). The term stress will be used here to refer to such terms and concept as strain, pressure, etc.

Role Space Conflicts
Role space is the dynamic relationship between the various roles an individual occupies and his self. The three main variable are: self, the role under questions, and the other roles he occupies.
Any conflict among these are referred to as role space conflict or stress. These conflicts may take many forms.

1. **Self- Role distance:** The conflict between the self-concept and the expectations from the role, as perceived by the role occupant, gives birth to this stress.

2. **Intra-role conflict:** An individual develops expectations as a result of his socializing and observing others. It is likely that he sees a certain incompatibility between the different expectations (functions) of his role.

3. **Role stagnation:** With time and individual’s advancement, the role changes; and the need for taking on a new role becomes crucial. This problem is acute especially when an individual who has occupied a role for a long time enters another role in which he feels less secure.

4. **Inter-role distance:** When an individual occupies more than one role there are bound to be conflicts between them.

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**Role Set Conflicts**

Role set comprises of important persons who have varying expectations from the role that an individual occupies. The conflicts which arise as a result of incompatibility among these expectations by the significant others (and by the individual himself) are referred to as role set conflicts. These **conflicts** take the forms mentioned below.

1. **Role ambiguity:** When an individual is not clear about the various expectations that people have from his role he faces role ambiguity. Generally, role ambiguity is experienced by persons occupying role that are newly created in organizations, role that are undergoing change, or roles with less clear and less concrete activities.

2. **Role expectation conflict:** When there are conflicting expectations or demands by different roles senders (persons having expectations from the role), the role occupant experiences this type of stress; may be from the boss, subordinates, peers or clients.

3. **Role overload:** When a role occupant feels that there are too many expectations from the significant others in his role set, he experiences role overload.

4. **Role erosion:** A role occupant may feel that the functions he would like to perform are being done by some other role.
5. **Resource inadequacy**: Resource inadequacy stress is experienced when the resources required by role occupant for performing his role effectively are not available. Resources may include information, people, material, finance or facilities.

6. **Personal inadequacy**: When a role occupant feels that he does not have enough knowledge, skills or training to undertake a role effectively, or that he has not had time to prepare for the assigned role he may experience stress.

7. **Role isolation**: In a role set, the role occupant may feel that certain roles are psychologically closer to him, while others are at a much greater distance. The main criterion of distance is the frequency and ease of interaction.

To sum up, in relation to organizational roles, the following ten stresses are worth considering;

1. Self-role distance (SRD)
2. Inter-role distance (IRD)
3. Role stagnation (RS)
4. Role isolation (RI)
5. Role ambiguity (RA)
6. Role expectation conflict (REC)
7. Role overload (RO)
8. Role erosion (RE)
9. Resource inadequacy (RIn)
10. Personal inadequacy (PIn)

**The instrument – ORS**

The organizational role stress scale (ORS) is used to measure 10 role stresses, i.e. self-role distance, inter-role distance, role stagnation, role isolation, role ambiguity, role expectation conflict, role overload, role erosion, resource inadequacy and personal inadequacy. ORS is a 5-point scale (0 to 4), containing five items for each role stress range from 0 to 20. Responses are to be given on an answer sheet.

**Scoring**
The answer sheet is also used for scoring. The total scores on each role stress range from 0 to 20. To get the total scores for each role stress, the ratings given are totaled horizontally (for five items). The 10 rows, respectively, rate the ten stresses mention earlier.

**Coping With Role Stress**

When individuals experience stress, they try to adopt ways of dealing or coping, with it as they cannot remain in a continual state of tension. The word **coping** is used primarily to demonstrate ways of dealing with stress and to distinguish between effective and ineffective coping.

Effective strategies to cope with stress are **approach** strategies, the ones that confront the issue of stress as a challenge, and enhance the capability of dealing with stress. Ineffective strategies on the other hand, are **avoidance** or escape strategies, which bring down the feelings of stress by, for example, denying the reality of stress, or through the use of indulgence, alcohol, drugs or other aids to escapism.

Social and emotional support helps a person to effectively cope with stress. Persons with higher emotional intelligence or the ones getting support from the friends and family are able to use more approach strategies. Social support includes material support (providing resources) and emotional support (listening to the person and encouraging him).

Coping strategies may be perceived as a resultant of a combination of mode of coping, externality and internality.

**Externality:** Externality is the feeling that external factors are responsible for role stress, resulting in aggression towards, and blaming of, these external factors. Externality may be high or low.

**Internality:** The person may perceive himself as responsible for the stress, and may therefore express aggression or blame himself. Similarly, the respondent may expect a solution for the stress from within. Internality may be high or low.

Approach and avoidance aspects when combined with each of the three dimensions, Rosenzweig (1978) arrived at eight possible strategies for coping with stress.

**Avoidance mode is characterised by any one of the following:**

(a) Blame and Aggression

(b) Resignation and Helplessness
Minimising the implication of the stressful situation by accepting it with resignation

Denying the presence of stress or finding an explanation for it

Such behavior helps a person in not doing anything in relation to the stress. The word ‘punitive’ (borrowed from Rosenzweig) has been used in the instrument for the avoidance mode and capital letters are used for this expression by the respondents.

**The approach mode, on the other hand is characterized by:**

(a) Hope that things will improve
(b) Effort made by the subject will help to solve the situation
(c) Expectations that others will help, or asking for help in relation to stress
(d) Jointly doing something about the problem

Term ‘persistive’ is used for the approach mode, and small letters have been for the style in this mode. The eight styles are briefly described below.

**Categories of Coping Styles**

1. **Impunitive [M]**: has a combination of low internality, low externality and avoidance. This is a fatalistic attitude and has “blame for the frustration is evaded altogether, the situation being regarded as unavoidable”.

2. **Intropunitive [I]**: characterized by high internality, low externality and avoidance. Blame and aggression are directed by the respondent against himself.

3. **Extrapunitive [E]**: is characterized by low internality, high externality and avoidance. It is a combination of “the presence of the frustrating obstacle is insistently pointed out” and the “when blame, hostility, etc. are turned against some person or object in the environment.”

4. **Defensive [D]**: is characterized by high internality, high externality and avoidance. By involving the self and others, but by the avoidance mode, a person avoids aggression or blame with the help of defense mechanisms.

5. **Impersistive [m]**: is characterized by low internality, low externality and approach. “The expression given to the hope, that time or normal circumstances will bring about the solution of a problem; patience and conformity are characteristic.”

6. **Intropersistive [i]**: is characterized by high internality, low externality and approach.
7. **Extrapersistive [e]**: is characterized by low internality, high externality and approach.

8. **Interpersitve [n]**: is characterized by high internality, high externality and approach. It is the opposite of the defensive (D) style.

**The instrument – Role Pics**

To assess a respondent’s style or strategy to cope with role stress, the semi-projective instrument - Role pics serves the purpose. Pics is an short form of ‘Projective Instruments for Coping Styles.’ Role Pics (O) is used to assess coping styles in relation to organizational roles. In this instrument some situations are given in which a role occupant is shown to be in conversation with another person, and either of them makes a statement about a role stress situation. A respondent is required to write down how the person, to whom a statement has been made, would respond. It is presumed that the responses will be a projective expression of the way the respondent himself would cope with a particular stress.

Role pics takes about twenty minutes to complete. The respondent himself/herself writes down. The respondents are told to write down the first response that comes to their minds.

**Scoring**

Responses are scored by using a system of categorization, on the guidelines provided in the book - Training Instruments in HRD and OD by Prof Udai Pareek. Sometimes, statements can be scored under two or three categories. In such cases, a statement is scored under two categories and each category is given a half (0.5) score. Group Conformity Rating (GCR) is also to be scored.

**Group Conformity Rating (CGR)**

The concept of CGR has been borrowed from Rosenzweig. CGR measures the conformity of an individual score to the modal response of the group. The modal response is the “most frequently given response style” to a situation by a group. For a category to qualify as modal, it must have a minimum of a third of all responses (33.3 percent). Rosenzweig had suggested a forty per cent criterion.
HYPOTHESIS

Alternate Hypothesis (H1):

a) There are differences in the Interpersonal needs of the people working for an Indian company, an MNC and a Start Up venture.

b) People working for Startup ventures are more stressed than the people working for Indian companies and the MNC executives being least stressed

c) The styles to cope with stress varies between the three categories, i.e. Indian, MNC and a Start Up Company.

d) Managers are more stressed than the executives reporting to them.

Null Hypothesis (H0):
a) There exist no differences in the Interpersonal needs of the people working for an Indian company, an MNC and a Start Up venture.

b) Working for an MNC, an Indian company or a Start Up venture does not produce different levels of stress among their executives

c) The styles to cope with stress does not vary between the three categories, i.e. Indian, MNC and a Start Up Company.

d) The stress levels are not different between the Managers and the executives reporting to them.

**SAMPLE CHARACTERISTICS**

**Where were the respondents chosen from?**

The participants in the study were from two well established Indian companies – Cipla and Dr Reddy’s; two Multinational companies operating in India viz. Glaxo Smithcline and Novartis and two Start Up companies – SAF Fermion and Ampus Lifecare.

The category Executives contain the Professional Service Representatives or Medical Representatives and the Font Line Executives. The category Managers including the Regional Sales Managers and Divisional or Zonal Managers, which are in Pharma industry known as second line and third line managers.

From Indian companies category there were forty five executives and nine managers; from Multinationals there were forty two executives and six managers and from Start Ups there were forty eight executives and five managers.

**How was the data collected or respondents reached out?**

All the participants were met during either their sales meetings or during a training workshop conducted for their developments. The instruments were explained to them and they were requested to submit responses.
**Quality of the sample**

The respondents were from every nook and corner of the country from North to South and from West to East. Since they were met, addressed personally and requested for an honest feedback the quality of the data is good which reflects in results of not only the observational analysis of the data but also was found to be statistically significant.

**Difficulties in data collection**

To invest time answering a questionnaire which does not bring an immediate benefit is something everybody shirks from and it is all the more difficult if the company is to be approached for allowing the time by the group of employees, gathered for some other purpose. At certain places the questionnaires were inculcated in the training-workshops, while at other places it was promised that the outcome of the research will be utilized for designing a tailor made developmental workshop so as to benefit the company. Travelling to remote locations across the country for data collection was indeed time consuming.

**STATISTICAL TREATMENT**

No research findings, however clear and suggestive it is, in it’s analysis made after data-collation observation is meaningful unless the results are statistically significant. Statistical treatment is essential so as to make use of the data in the right form. Collected data is in raw form and is only one aspect of a research; the organization of data is very important for the appropriate conclusions to be drawn.

There are a number of techniques involved in statistics which treat data in the required manner. Statistical treatment of data largely depends on the kind of research and the result that is desired from the whole exercise.

For the statistical interpretation the collected data was processed with a software program called *SPSS* - Statistical Package for the Social Sciences, by IBM. It is a software package for statistical analysis.
For the comparative analysis where more than two variables are involved One-Way ANOVA was applied and for the analysis for two variable to be compared, Paired Sample T Test was applied.