CHAPTER 4

MATERIALS SAMPLE AND THE METHOD
The present study required collection of data related to job involvement, job satisfaction, occupational stress, coping styles, perceptions of organizational climate and locus of control of the subjects. Therefore, the following instruments were used in assessing the same.

Assessment of Job Involvement:

Job involvement is individuals' cognitive state of psychological identification with their jobs (Lodahl and Kejner, 1965). It is a complex concept based on individuals cognition, action and feeling (Saleh and Hosek, 1976) and found to be confirmed by several personal and situational factors. It has significant influence on incumbents other job attitudes and behaviour (Rabinowitz and Hall, 1977) and individuals involvement with their jobs is very important to their psychological well being as much as it is to that of the organization.

Various instruments developed by Kapoor and Singh (1978) Lodahl and Kejner (1965), Salah and Hosek (1976), Kapoor and Singh (1978) and others were available to assess job involvement of the subjects. However, as these instruments were found to be associated with problems of construct validity (Kanungo, 1982), the questionnaire form of Kanungo's Job Involvement Scale (JIQ, see in appendix)
which was reported to have good validity and reliability was selected for use in the present investigation. Kanungo's job involvement scale is available in three different forms - questionnaire format, semantic differential format and graphic format. Of the three the questionnaire format was chosen in view of the ease with which the subjects could follow the directions for completing the questionnaire. It consists of 15-items including 5 filler items. Each item has 4 response categories viz., agree, mildly agree, mildly disagree, disagree, with scores 4, 3, 2 and 1 respectively. Scoring for the positive items starts from 4 to 1 points and that of the negative ones 1 to 4 points yielding a maximum possible score of 44. High score indicates high job involvement. Regarding the reliability of the scale, Kanungo (1982) reported an internal consistency coefficient of 0.87 and a test-retest coefficient of 0.85. Although the questionnaire happen to be standardized on a sample of Canadian subjects several researchers Basha (1988), Chandraiah (1993), Kumar (1990), Premchand Babu (1989), Reddy (1990) found it working satisfactorily with the Indian sample as well. However, the test-retest reliability coefficient established for the present study on a local sample of 60 subjects (30 executives and 30 supervisors) with an interval of thirty days between the two testing sessions was 0.64.
Assessment of Job Satisfaction:

Job satisfaction is an attitude that individuals have toward their job. In other words, it is their affective response to the job. Several researchers devoted their time and attention to develop standard measures of job satisfaction like Minnesota Satisfaction Questionnaire (Dawis, Enland and Lofquist, 1967), Faces Job Satisfaction Scale (Kunin, 1955), Need Satisfaction Questionnaire (Porter, 1961), Job Satisfaction Rating Scale (Rao, 1980), Job Satisfaction Questionnaire Format (Kanungo, 1982) and Job Description Index (Smith et al, 1969, see in appendix). Among these scales, Job Description Index (JDI) was chosen for the present study as it was found to be well developed and widely used measure of job satisfaction Basha (1988), Kumar (1990), Sharma & Choudary (1984) used this index and found it suitable with Indian sample also.

The Index measures satisfaction of individual in five areas, viz., work, superiors, co-workers, pay and promotion. It consists of a series of statements related to these areas and the individuals are to indicate their response by marking on 'YES' or 'DOUBTFUL' or 'NO' as it is applicable to them. Each positive statement gets a score of 2 for yes, 1 for doubtful and 0 for no and each negative statement gets 0,1 and 2 for yes, doubtful, no response range respectively. The total score obtained on the five areas could be considered as a measure of job satisfaction. High score
indicates high job satisfaction. The reliability of the scale was determined employing the test-retest method with an interval of 4 weeks on a sample of 30 executives and 30 supervisors. The reliability coefficient obtained was found to be 0.68.

Assessment of Occupational Stress:

Occupational stress consists of any aspect either internal or external in the job situation which taxes the adaptive responses of individuals. Several standard instruments like Organizational Role Stress Scale (Udai Pareek, 1983), Teacher Occupational Stress Factor Questionnaire (Clark, 1980), Maslach Burnout Inventory (Maslach, 1981) Occupational Stress Index (Srivastava and Singh, 1981, see in appendix), Occupational Stress Scale (Rizzo, House and Lirtzman 1970), Role Stress Scale, (Abdel-Halim, 1978), Job Stress Scale, (Patter and Fielder 1981), The Organizational Stress Questionnaire (Singh and Sinha, 1987) are available to assess employees job stress. Of all the tools Occupational Stress Index (OSI) developed to suit to the Indian situations was chosen for use in the present study.

The Occupational Stress Index consists of 46 statements ranging from strongly disagree to strongly agree. A response in the strongly disagree category is given a score of 1, 2 for disagree, 3 for agree, 4 for strongly agree. Of
the 46 statements 28 are positive keyed and the remaining negatively keyed. The items are related to almost all relevant components of job life which cause stress in some way or the other, such as Role overload (RO), Role Ambiguity (RA), Role Conflict (RC), Group and Political Pressure (GPP), Responsibility (RES), Underparticipation (UP), Powerlessness (PLS), Poor peer relations (PRR), Intrinsic impoverishment (IMP), Low status (LS), Strenuous working conditions (SWC) and Unprofitability (UP). This scale was found to be working satisfactorily with people in different professions (Basha 1988), Chandraiah, 1993; Dharmangadan 1987; Jagadesh 1987; Mishra 1984).

A high score is considered to be indicating high occupational stress. The reliability of the index ascertained by split-half (odd-even) method and Cronbach's alpha coefficient for the scale (as reported by the authors) were 0.93 and 0.90 respectively. The instrument was translated into the regional language (Telugu) from English and tested for its reliability. The Telugu version of the index was administered to a group of 30 executives and 30 supervisors in two different sessions with a gap of 3 weeks in between. A correlation coefficient of 0.78 obtained for the scores of the two versions was significant at 0.01 level.

Assessment of Coping Styles:

Individuals manifest several adaptive bahavioural
strategies in order to alleviate the tension generated when confronted with certain job situations. The coping process could be broadly conceived as an array of covert and or overt behaviour patterns of individuals which would positively or negatively prevent, alleviate or reduce the effect of stress inducing circumstances. However, coping behaviour of each individual is unique to himself or herself.

Various attempts have been made to classify coping responses (e.g., Billings and Moos, 1982; Dunham, 1984; Kendall and Hollon, 1980; Dunham, 1984; Kyriocou, 1980; Lazarus, 1981, Mechanic, 1967, Pearlín and Schooler, 1978). After examining these approaches it was felt that Billings and Moos (1982) categorization i.e., Appraisal focused coping, Problem focussed coping and emotion focused coping would cover most of the coping practices usually manifested by people. It was also felt that it would be more helpful if a scale could have developed with the statements pertaining to each of these coping styles (see in appendix). With this idea a pool of 24 statements were constructed in Telugu and the list was scrutinized by two psychologists in the department, regarding their validity for inclusion in the scale. The finalized version of the scale consists of 18 statements (6 for each of the three sub scales) with two response (yes or no) categories. A positive response gets a score of 1 and a negative one a score of 0. High score on any of the sub-scales indicates predominance of that
particular coping style and low scores indicate low frequency of occurrence of that particular coping style.

Initially a pilot study of the scale was conducted in two phases. In the first phase 60 subjects were given the questionnaire and were asked to tick the coping responses they generally use to overcome stress at work situation. After a gap of 4 weeks, in the second phase again same questionnaire was administered to the same subjects. On comparison of the responses of subjects in the first and the second sessions it was found that on average difference of 0.4 items per person only occurred between the first and second measurement thus giving the instrument good reliability.

Assessment of Perceptions of Organizational Climate:

Organizations differ in their personality each with their unique organizational structure, built in formal and informal functional systems interacting with the physical and psychological needs of the employees. The climate prevailing in the organization influences the employees perception of their organization as hostile or supportive of incumbents morale, as conducive or otherwise to achieving results or as uncongenial and hampering the formation of healthy working atmosphere and so on.
To assess organizational climate several scales were developed by Kolb, Rubin and McIntyre (1974) and Litwin and Stringer (1968) in the West and by Ansari (1981) and Ganesan (1976) in the Indian context. Of the two Indian tools Ansari's scale (see in appendix) was selected for use with the present sample in view of its suitability with the present sample and the ease with which it could be administered and scored. It is an Indian and adopted version of Litwin and Stringer's (1981 scale containing 12 items in contrast to a set of 93 items in that of Ganesan's. Most of the items in Ganesan's scale appear to be related to job satisfaction. As such a separate instrument had already been chosen to assess job satisfaction of the sample, it was felt that it would be apt to assess organizational climate using Ansari's modified scale with 12 items pertaining to three dimensions, viz., structural; reward and participation; and warmth and support. Each statement has three response categories, i.e., yes, Doubtful and No, with scores 2, 1 and 0 respectively, for positive items. On the contrary each negative item gets a score of 2 for no, 1 for doubtful and 0 for yes. Scores on this scale range from 0 to 24 with high score indicating highly positive perceptions of organizational climate and low score of poor or negative perceptions of organizational climate. The questionnaire was translated into Telugu and the reliability of the scale was determined employing the test-retest method with an interval of 4 weeks on a sample of 30 executives and 30 supervisors and the obtained reliability coefficient for the
scores on two testings was 0.65.

Assessment of Locus of Control:

The locus of control is a personality construct which refers to the degree to which people believe that they exercise control over their lives. Persons who perceive events as being under their own control or because of their own actions are viewed as internals, whereas those who perceive events as being beyond their control and unrelated to their own behaviour or largely determined by luck, fate or powerful others are externals (Rotter, 1966, see in appendix). Individuals locus of control is consistently found related to a variety of personality factors, with internal describing themselves as more active, striving, achieving, powerful, independent and effective.

Several researchers in the West like Rotters (1966, I.E.Scale), Levinson and Millers, (1966 Three Factor Test), Lefcourt (1976, Instrument of Locus of Control) and in the Indian context Valecha, Sridhar, and Nandagopal (1980), Mathew (1983) and several others developed independent tests to measure locus of control. Among these Rotters (1966) Internal External Locus of Control scale which has been widely used in the Indian industrial and educational settings (Eg. Achamamba 1978, Chandraiah 1993, Farooqui Tharakan 1978, Kumar 1990) was chosen for the present study.
It is a forced choice test with 29 items including 6 filler items intended to make the purpose of the test somewhat ambiguous. The test can be scored either for externality or internality. It was scored towards externality in the present study. Therefore, now high score on the scale shows the externality of the subject and the low score internality. The translated version of the scale was administered to a sample of 30 executives and 30 supervisors twice with an interval of 4 weeks and the reliability coefficient of the scores obtained on the two occasions was 0.66.

Sample:

The sample of the study was drawn by a two stage random sampling. In the first stage a number of public, private and cooperative sector organizations situated in and around Chittoor, Cuddapah and Nellore districts of Andhra Pradesh, India were enlisted with the help of the Department of Industries, Government of Andhra Pradesh. Organizations involved in the study were all large scale units and almost matching in their capital investment, infrastructure, manpower, production etc. Later, 10 public organizations, 10 private organizations and 10 cooperative organizations were selected at random from the list.

In the second stage from the organizations selected 30 subjects were drawn at random for each age group i.e., 20-
39 years and 40-59 years from among those in the three job levels i.e., Executives, Supervisor and Workers. That resulted in a total of 540 subjects in the sample. However, loss of sample owing to several reasons like incomplete questionnaires, absenteeism on repeated testing sessions refusal rate etc. reduced the final sample to 475. In view of the ease of computations it was decided to have an equal number of subjects in each age group at all the three job levels. Thus the size of the sample was confined to a total of 450 as detailed in Table 1.

<table>
<thead>
<tr>
<th>Age groups</th>
<th>20-39 years</th>
<th>40-59 years</th>
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</thead>
<tbody>
<tr>
<td>Sector</td>
<td>Executives</td>
<td>Supervisor</td>
</tr>
<tr>
<td>Public</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Private</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Cooperative</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

Executives were defined as those who were heading the department and with decision-making authority in personnel,
production, purchase, maintainance, stores and other departments in their respective sectors.

In supervisory category chief operators, foremen, technical assistants, highgrade holders in various departments in their respective sectors were included.

Workers in the sample were turners, electrical winders, spinners, carpenters, siders, welders, boiler operators, packers and the like in their respective sectors.

Glaring educational differences could be seen among executives, supervisors and workers. Most of the workers in 40 - 59 age group were with education terminated at high school level and most of those in 20 - 39 age group were graduates and with some technical diplomas. While most of the supervisors in the two age groups were compulsorily holding some technical diplomas, almost all the executives were holding good university degrees like M.B.A., M.Sc., M.A., B.Tech. and M.Tech., etc. As participation of women in industrial sector was much limited the study was confined to to men alone.

Method:

Data were collected using survey method. After obtaining permission from the managing directors or administrative officers of the selected organizations the
lists of the executives, supervisors and workers working in their organizations were collected. Next the subjects were assigned at random for each age group and job level wise. Later the subjects were met individually explained the purpose of the study in detail and their cooperation was solicited.

Next, at an appointed time of subjects convenience the questionnaires were administered. Administration of questionnaires was done in two sessions. In the first session the subjects were approached with bio-data sheet, Job Involvement Questionnaire (JIQ), Job Descriptive Index (JDI) and Perceptions of Organizational Climate Scale (POC). In the second session Occupational Stress Index (OSI), Coping Style Scale (CSS) and Locus of Control Scale (LOC), were administered. As all the questionnaires were available both in English and Telugu the subjects felt the convenience of answering the schedules in their preferred language.

The subjects were asked to fill in the questionnaires in the presence of the investigator itself. However, under certain circumstances like their inability of finding adequate free time to fill in the schedules, they were asked to complete them at home at their leisure. Illiterate workers numbering 10 to 15 were read out the questionnaires and their responses were noted at the work spot itself. Of the 540 subjects included in the first session, some subjects were not available for the second session for their
own reasons. This resulted in the reduction of the sample size from originally planned 520 to 490. Even among those who were present for both the sessions some of their answers were incomplete. Deletion of all such questionnaires reduced the sample size to 475. However, for the ease of computation an equal number of 25 subjects in each age group was retained. Thus there were 450 subjects involved in the study. The data collected were analysed using appropriate statistical techniques.