CHAPTER III

PROBLEM AND METHODOLOGY

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3.1. INTRODUCTION

As introduced in the first chapter and reviewed in the second chapter, marriage adjustment of men and women, husbands and their wives, as influenced by a number of factors in the modern society has been the main problem of the study in the present investigation. It has been noted earlier that the principle of sex-role allocation, male and female, i.e., the process of sex-typing as well as associated behavioural functions that differentiate between male and female has been playing a crucial role in the process of socialisation and personality development of individuals, and therefore, also in the marital adjustment which is the most important behaviour of couples for personality adjustment or development or socialisation. Recently, this traditional principle of gender identity underlying the sex role standards has been questioned by psychologists (Bem, 1974; Hefner et al., 1975), and psychopathologists have expressed concern over possible detrimental effects of traditional sex role standards upon the full development of capabilities of men and women. In light of recent investigations, this traditional conception of masculine and feminine has undergone a unique change in the modern world of work, especially with women's liberation movement and has been replaced by a new, non-traditional approach to sex-role orientation, which implies that it is possible for an individual to be both masculine and feminine, depending on the situational modalities and that individual may even blend these two complementary
modalities in a single act (Bem, 1977). A number of investigators have examined this approach to sex role orientation and its contribution to marital adjustment, as reviewed in the preceding chapter, mostly in the West and a few in the East, yielding results confirming this view to some degree and yet, there are not clear-cut findings about the part played by sex-role orientation in marriage adjustment. Equally important variable affecting marital adjustment and personality growth has been the locus of control that has been recently studied in terms of specific marital locus of control (newly developed by Miller et al., 1983). Marital adjustment is a resultant behaviour as a function of many other complex variables interacting, and these being not adequately controlled by appropriate research designs or statistical procedures, the findings of earlier studies have revealed disagreements and discrepancies to some extent. In view of such concerns, the present investigator has attempted to study the same problem of marital adjustment, as influenced by this non-traditional approach to sex role orientation as well as a number of other variables, collecting data under more adequate experimental designs and analysing results with more refined statistical techniques.

3.2 PROBLEM: THE AIM OF THE STUDY

To be specific, as the title of the work reads, the problem under study has been: "A non-traditional approach to marital adjustment among working and conventional couples
as a function of sex-role orientation and marital locus of control." In other words, the problem under study has been to re-examine the recent non-traditional approach to sex-role orientation and to understand clearly the role, the influence or contribution of sex-role orientation (as conceptualised newly by Bem, 1974) affecting marital adjustment. Additionally, the investigation aims also to study the role of equally important another variable, viz., locus of control (Rotter, 1966) or more specifically, marital locus of control (as specified and newly developed by Miller, Lefcourt & Ware, 1983) on specific behaviour of marital adjustment. And in view of the fact that nowadays in modern society, with the women liberation movement, the women have come out of their home to assume another function to work outside home, besides their function as housewife, the couples sampled for the study were either working couples (both husband and wife working) or conventional couples (only husband working and wife not working as understood in old conventional traditional sense). Thus, the third important variable viz., work level status of couples i.e., wife liberated to work outside or traditional conventional wife at home, was also included in the investigation at the same time. In other words, as the title shows, the investigator has aimed to adopt a non-traditional, new, recent approach while examining primarily all these three main variables of sex-role orientation (Bem), marital locus of control (Miller) and work level status of couples (after women
liberation movement) - all affecting marriage adjustment in the modern society.

Since these couples sampled randomly were differing in their length (duration) of married life, were living in families of different types (nuclear or joint), were varying in socio-economic status, the inclusion of such married couples in the sample enabled the investigator to study concomitantly the effect of other four variables viz., sex, marriage length, socio-economic status and family type, all thought likely to be affecting marital adjustment of couples. The length of married life used to be the same in case of husbands and wives, since the day of the marriage. So also, since the wife lived in the husband's family, the socio-economic status and the family type were also considered to be the same as those of the husband. In short, the investigator aimed to study the problem of marital adjustment primarily as a function of sex-role orientation, marital locus of control and work level status, all under new non-traditional sense, and concomitantly at the same time the influence of sex, length of married life, socio-economic status and family type on marital adjustment.

3.3 OBJECTIVES

Following from the aim of the study, the specific objectives of the present study were:

1. To examine the contribution of sex role orientation (as newly conceptualised by Bem) to marital adjustment.
2. To investigate the role of marital locus of control (as recently developed by Miller) in marital adjustment.

3. To study the effect of work-level status on marital success or happiness.

4. To find out how far length (duration) of married life affects marital adjustment.

5. To observe sex differences, if any, in marriage adjustment of males and females, i.e., of husbands and wives.

6. To know whether socio-economic status plays any part in the extent of marital adjustment.

7. To understand whether the type of the family in which the couples live (nuclear or joint) makes any difference in the extent of marital satisfaction or adjustment.

3.4 HYPOTHESES: NULL AND ALTERNATE

In order to investigate scientifically and methodologically the role of the above seven variables as observed in the above objectives, the following corresponding hypotheses, both null as well as alternate, were formulated for statistical testing and verification on the basis of data collected and analysed in order to examine the significance of difference between various levels of these seven variables.

1. Null Hypothesis:

   Varied types of sex-role orientation do not differ in
their effect on marital adjustment.

Alternate Hypothesis:
There are significant differences among varied types of sex-role orientation (androgynous, stereotyped, cross-sex typed and undifferentiated) in their effect on marital adjustment.

2. Null Hypothesis:
There are no differences between the two categories of marital locus of control (external and internal) in their role in marital adjustment.

Alternate Hypothesis:
Both categories of marital locus of control differ significantly from each other in their role in marital adjustment.

3. Null Hypothesis:
Work level status groups of couples (working and conventional) do not differ from each other in their contribution to marital adjustment.

Alternate Hypothesis:
Working couples differ significantly from conventional couples in their contribution to marital adjustment.

4. Null Hypothesis:
The length of married life, whether shorter or longer i.e., younger or older couples, does not make any difference in marital adjustment.

Alternate Hypothesis:
Younger couples with shorter duration of married life
differ in marital adjustment from older couples with longer duration of married life.

5. Null Hypothesis:
There are no significant sex differences in the extent of their marital adjustment.
Alternate Hypothesis:
Sex of the subjects does make a difference in marital happiness i.e., husbands differ from wives in their extent of marriage adjustment.

6. Null Hypothesis:
Socio-economic status of couples (of husbands in this study) does not play any role in their marital happiness.
Alternate Hypothesis:
Level of socio-economic status (middle or higher in this study) does play a significant role in marital happiness.

7. Null Hypothesis:
Type of the family in which the couples live (i.e., nuclear or joint) does not make any difference in the extent of marital adjustment of couples.
Alternate Hypothesis:
Type of the family (of the husband in the present study) makes a significant difference in the extent of marital adjustment of couples.

Data were collected and analysed in order to test statistically which hypotheses from above were retained or rejected.
3.5 VARIABLES UNDER STUDY

As observed from the specific objectives and corresponding hypotheses mentioned above, the researcher has taken into account three types of variables, viz., (a) independent i.e., those manipulated or varied at different levels in order to study their effects, (b) dependent, i.e., those measured or observed (consequent effects depending on independent variables); and (c) controlled or constant i.e., any other independent variables not under study, but suspected to influence the results (dependent variable) and hence controlled somehow or kept constant in the study. These are enumerated below:

3.5.1 Independent Variables:

Primarily Studied:

(i) Sex-role orientation (SRO), classified into four types viz., Androgynous (A), Stereotyped (S), Cross-sex typed (C) and Undifferentiated (U) as devised by Bem earlier.

(ii) Marital locus of control (MLOC), classified into two types viz., External (E) or Internal (I).

(iii) Working-level status of couples, varied at two levels, viz., working (W) i.e., both husband & wife working and conventional (C) i.e., only husband working, but
wife not working as understood conventionally.

Concomitantly studied:

(iv) Length of married life (ML) varied into two types, viz., shorter duration of 5-15 years (ML1) i.e., younger couples and longer duration of 25-35 years (ML2) i.e., older couples. This was the same for both husband and wife since the day of their marriage. For verifying the likelihood of more information, this variable was also tried out in some cases at four levels, viz., 5-10 years (ML1), 11-15 years (ML2), 25-30 years (ML3), and 31-35 years (ML4), but it did not yield any additional significant information other than two levels and hence ML was studied at two levels only ML1 and ML2 mentioned above. (It should be noted that only first time married couples were studied here).

(v) Sex of subjects - males and females i.e., husbands (H) and their wives (W).

(vi) Socio-economic status (SES) of couples i.e., of the family of the husband wherein both live together, varied at two convenient and available levels viz., middle (SES1) and higher (SES2). Lower level was dropped in view of insignificant number. The SES level of the head of the family of husband in joint family or SES level of the husband in nuclear family was considered to be the same SES for both husband and wife in this study. This was a conventional, simple or arbitrary consideration; separate SES of husband and wife based on one's own income or income of head of one's
own family would have been taken into account as an additional variable, but it would have complicated the inferences and not studied here.

(vii) Family type (FT) of couples, studied at two levels, viz., nuclear (FT1) i.e., divided family living separately and joint (FT2) i.e., living with husband's parents.

3.5.2 Dependent Variables

Marital adjustment as measured on Marital Adjustment Questionnaire (Kumar & Rohatgi, 1987) obviously formed the dependent variable. Marital adjustment score was computed in two ways for analysis of data. When marital adjustment score of each individual was computed separately as per key, it was termed as MAQ score for the husband or wife, irrespective of being treated as couples. But when the marriage adjustment score of both husband and wife as couple was comparatively and jointly considered for each pair on the basis of MAQ score for each as per key, it was termed as single MAQC score for a couple. Both types of scores MAQ and MAQC served as dependent variables, as and when necessary in the study.
3.5.3 Controlled or Constant Variables:

These are other independent variables (except the ones manipulated as shown above) not studied experimentally, but thought likely to affect the dependent variable were controlled by use of adequate experimental design or kept constant or their likely effect was negated through random sampling. Such were, actual chronological age, personality characteristics, intellectual traits or calibre, habits, attitudes, life-styles, culture, religion, region, community, caste or subcaste of each subject, and so on, likely to influence marriage adjustment. However, their influence were controlled or kept constant in most cases as far as possible primarily through random sampling from a wide population as well as by taking a larger number of subjects (800 in the present study), thought to negate on the whole any such influence in a few cases if there be, which increases error variance. Attempt is made also to reduce such error variance through careful selection and use of adequate experimental designs and refined statistical techniques.

3.6 EXPERIMENTAL DESIGNS

In order to examine the main as well as interaction effects of more than one independent variables on the dependent variable and also for the purpose of better control of those independent variables at different levels during
the process of collection and analysis of data, the most appropriate design would be the use of factorial experimen-
tal design. Ideally, to study seven factors or variables at a time as enumerated above in order to examine their main as well as their interaction effects, a seven-factor factorial experimental design should be used. Thus, data were so arranged first as in a seven factor experimental design thus SRO X MLOC X WC X ML X SEX X SES X FT \((4 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2)\) factorial design representing 4 levels of SRO, 2 levels of MLOC, 2 levels of work level status, 2 levels of length of married life, 2 levels of sex, 2 levels of SES and 2 levels of family type as mentioned under the head of variables under study.

However, on trying out this one, it was found that the design was too huge and complex for clear, precise under-
standing or interpretation of interaction effects of these variables at different levels, and also that there were no doubt unequal, but also insufficient, unproportionate number of subjects in some extreme cells or subgroups formed by so many factors. To use such a huge design, much pre-planning for drawing a huge sample representative of all groups or subgroups should have been done, and even after such plan-
ning, there would be much unequal, unfairly less comparable number of subjects in some subgroups, making it still more difficult (not for computing machine, but for practical understanding) to analyse and interpret some significant interactions of higher order, since any behaviour is a
complex resultant of many interacting factors. Under such circumstances, other factorial designs with six, five and four factors including primarily the important, three variables, viz., SRO, MLOC and WC, while dropping for comparisons one or the other of the four other relevant, but less significant variables used in some designs, in order to study their effects on MAQ or MAQC. Since all variables could not be studied together in one design due to lack of sufficient number of observations in each cell, a few other designs were tried out, to study some variables as accurately as possible. To summarise the data were analysed by using the following factorial designs and the results were confirmed and compared therefrom.

To study MAQ with N=800 individual subjects each subject having one score, following five designs were tried out:

1. Six-factor design:
   \[ \text{SRO \times MLOC \times W-C \times ML2 \times SEX \times SES} \]
   \[ (4 \times 2 \times 2 \times 2 \times 2 \times 2) \]

2. Five-factor design:
   \[ \text{SRO \times MLOC \times W-C \times ML2 \times SEX} \]
   \[ (4 \times 2 \times 2 \times 2 \times 2) \]
   dropping SES from No.1, it being insignificant.

3. Five-factor design:
   \[ \text{MLOC \times W-C \times ML2 \times SEX \times SES} \]
   \[ (2 \times 2 \times 2 \times 2 \times 2) \]
   dropping SRO from No.1

4. Four-factor design:
   \[ \text{SRO \times MLOC \times ML2 \times SEX} \]
   \[ (4 \times 2 \times 2 \times 2) \]
   dropping W-C and SES from No.1
5. Four-factor design:
SRO X MLOC X W-C X ML : (4 x 2 x 2 x 2),
dropping SEX and SES from No.1, both found insignificant and retaining specific all four factors that were significant throughout, in order to study interactions of these factors.

Again to study MAQC with N=400 couples, each couple having one common score, following two designs were experimented.

6. Four-factor design:
W-C X ML4 X SES X FT : (2 x 4 x 2 x 2)

7. Four-factor design:
W-C X ML2 X SES X FT : (2 x 2 x 2 x 2),
both being same, except that No.6 uses ML at four levels and No.7 uses ML at two levels for comparison. Scores on the main two variables of SRO and LOC being different for each individual could not be associated with a couple common score MAQC and hence dropped in last two designs to study MAQC. All these designs had unequal number of subjects as shown in tables presented in chapter iv.

3.7 SAMPLE

For the purpose of the study, the total sample consisted of 800 individual subjects, providing a total of 800 observations (N=800) for analysis of MAQ. These 800 subjects were made up of 400 husbands and their 400 wives i.e., in
all 400 couples providing a joint common total score of 400
(N=400) for analysis of MAQC. These 400 couples were dis­
tributed in such a way that there were equal number of
couples in each of work level status groups i.e., 200 work­
ing couples and 200 conventional couples. Similarly as
distributed among two groups as per length of married life,
there were equal number of couples in each of ML groups
i.e., 200 younger (ML1=5-15 years) and 200 older (ML2=25-35
years). With respect to groups of ML divided into four,
there were unequal number of subjects, i.e., 246 in 5-10
years, 154 in 11-15 years, 258 in 25-30 years and 142 in 31-
35 years groups. It should be noted here that subjects or
couples with less than five years of married life were
dropped for consideration in the study, probably because it
was thought that such recently married couples were still in
the process of making marital adjustments and hence it was
inappropriate or too early to pass any judgement on their
marital adjustment. Similarly, there were unequal numbers in
SRO GROUPS (A=195, S=208, C=148 and U=249), so also in MLOC
group (E=385, and I=415) and also unequal in SES groups
(middle SES1=336 and higher SES2=464 and unequal also in
family type groups (nuclear=428 and joint=372) out of total
of 800. All these subjects were from middle and higher
classes of society with school or college education, almost
a homogenous group randomly selected from Ahmedabad, living
in an area from where they could afford to send their chil-
dren to school.
3.8 TOOLS (TESTS) USED

Background information sheet (Appendix A) gave the information regarding the category levels of variables of sex, work-level status, length of married life and family type for each subject, while the following tests were administered to each subject into varied groups of categories of these variables as and when needed, in order to collect data on other independent and dependent variables.

1. The Psychological Sex-Role Orientation Inventory (BSRI-A)

This is a test to measure sex role orientation of individuals as conceptualised by Bem and discussed in the first chapter.

The original Bem Sex-Role Inventory (BSRI; Bem, 1974) has 60 items or adjectives implying the nature or characteristic traits, some applicable mostly to men and some to women. Thus the BSRI contains both masculinity (20 items) and femininity (20 items) scales as well as a social desirability scale (20 items). The items of the masculinity and femininity scales have been judged (see Bem, 1974) to be more desirable for one gender than the other; the social desirability (filler) items are not sex-typed. Subjects have to respond to each of traits and mark on a seven point scale, showing how well that adjective describes him or her. This inventory was adapted by Rao, Gupta and Murthy (1982) in English, keeping in view of Indian culture, retaining in
final form 30 items, thought to be more relevant to our culture. The final adapted inventory (BSRI-A) consists of 15 'masculine' and 15 'feminine' adjectives. The reliability and validity of this adapted form was established. The data helped to define the Indian stereotypes of masculinity and femininity and also emphasised the inapplicability of the original BSRI for an Indian population. Its validity and reliability coefficients (Rao et al., 1982) are given below:
Realibility & Validity

<table>
<thead>
<tr>
<th></th>
<th>Masculine</th>
<th>Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Split-half Reliability (N = 50)</td>
<td>0.45**</td>
<td>0.55**</td>
</tr>
<tr>
<td>Test-retest Reliability (N = 50) (Interval of 10 days)</td>
<td>0.80**</td>
<td>0.80**</td>
</tr>
<tr>
<td>Validity : average ratings of peers</td>
<td>0.36**</td>
<td>0.37**</td>
</tr>
<tr>
<td>Validity with self-ratings</td>
<td>0.16</td>
<td>0.34*</td>
</tr>
</tbody>
</table>

* p < 0.05. ** p < 0.01.

The present author has used this inventory, translating the terms adequately in Gujarati and establishing the reliability as shown below:

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Scale</th>
<th>N</th>
<th>r</th>
<th>Index of reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Split-half</td>
<td>M</td>
<td>50</td>
<td>.728</td>
<td>.843</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>50</td>
<td>.426</td>
<td>.537</td>
</tr>
<tr>
<td>Test-retest</td>
<td>M</td>
<td>60</td>
<td>.581</td>
<td>.762</td>
</tr>
<tr>
<td>(1 Month Interval)</td>
<td>F</td>
<td>60</td>
<td>.409</td>
<td>.640</td>
</tr>
<tr>
<td>Parallel form</td>
<td>M</td>
<td>50</td>
<td>.478</td>
<td>.691</td>
</tr>
<tr>
<td>(Eng. &amp; Gujarati)</td>
<td>F</td>
<td>50</td>
<td>.470</td>
<td>.686</td>
</tr>
</tbody>
</table>

(All r-values are significant beyond .01)

As suggested in the manual, correlation between the mean scores of M and F scales as a measure of construct validity of the Gujarati version of inventory was found to be r = .219 (n=50) and r = .235 (n=60) proving that the two scales are independent, as both values failed to reach desired significance level.

Each subject on being administered this SRO Inventory
adapted in Gujarati (Appendix B) marks at any one point on a continuum of seven-point scale with -1 representing "Never or almost never true" and 7 representing "Always or almost always true" against each of 30 items, and scoring is done as per key, in order to find out first the extent of masculinity or femininity in each individual. To obtain masculinity (M) and femininity (F) scores for each individual, means of the ratings for the 15 adjectives in each dimension were calculated separately. Again on the basis of these masculinity / femininity scores, whether high or low by a median split method, i.e., above or below median score (4.6 in case of masculinity and 5.4 in case of femininity), all subjects were divided into the following four groups as advocated by Spence, Helmreich and Stapp (1975) and Bem (1977):

(i) Androgynous - those with masculine high and feminine high,
(ii) Masculine - those with masculine high and feminine low,
(iii) Feminine - those with masculine low and feminine high and
(iv) Undifferentiated - those with masculine and feminine low.

Further, the masculine group subject (MH-FL), if male was termed stereotyped and if female, the subject was called cross-sex typed. Similarly, the feminine group subject (ML-FH), if female, the subject was labelled stereotyped and if male the subject was termed cross-sex typed. In other words on the basis of scores on BSRI-A, the subject may be any one of four types viz., Androgynous (A), Stereotyped
(S), Cross-sex typed (C) or Undifferentiated (U), psychologically in function or behaviour, while each may be either male or female physiologically or anatomically in structure or appearance. The present study investigates this SRO variable at these four levels, viz., A, S, C, U irrespective of their sex.

2. The Miller Marital Locus of Control Scale (MMLOC)

This is a self-administering verbal test of assessing an individual's marital locus of control orientation for achievement of marital satisfaction. This scale was developed by Miller, Lefcourt and Ware (1983). It consists of 44 items in 6-point Likert type scale format. This scale was modelled after the format of the Multidimensional Multiatributional Causality Scale (MMCS). The MMLOC scale included four attributional subsets—ability, effort, chance or luck and uncontrollable contextual characteristics of marriages. Items in the ability and effort sets combine to yield a set of internally worded items and luck and context items combine to yield a set of externally worded items.

Internal items were recoded in the external direction for scoring purposes so that scores on the total scale reflect greater externality. Therefore, higher scores on internal items (ability and efforts sub-scales), because of recoding, reflect denial of these attributions. Thus, a higher score indicates a more external orientation.

The Miller Marital Locus of Control Scale's reliability
and validity have been found quite satisfactory (Miller et al., 1983). Cronabach Alphas for the MMLOC were .83 (N=230), .84 for males (N=115) and .82 for females (N=115), indicating good internal consistency. No sex-differences were found in the normative data on the total scale (males, M=133.42, S.D.=19.83; Females M=131.43, S.D=19.59).

The inter-relationships among the four attributational item sets provide further indication of the internal consistency of the scale. The two internally worded sets, ability and effort, were strongly, correlated with each other (r=.64, $p < .001$) as were the two externally worded sets context and luck (r=.62, $p < .001$). On the other hand, neither the ability nor the effort set was strongly related to the external sets, the highest correlation being r=.26, $p < .01$ between the ability and luck sets. The remaining correlations were .14 (ability & context), -.05 (effort & context) and .04 (effort and luck).

The MMLOC has also been used in India (Husain & Gupta, 1987, Gupta & Husain 1988; and Gupta & Husain 1989) and they found it to be reliable and valid.

The investigator has used the Gujarati version of the MMLOC (Appendix C). The MMLOC was taken in its original English form and given to 5 experts knowledgeable or well conversant in both English and Gujarati languages for translation into Gujarati language. For selecting the most suitable version of the items, all the five Gujarati versions along with one copy of the scale in English were given to one psychologist and one renowned linguist in Gujarati for
their opinion. Finally, the most favoured items were included in the Gujarati version of MMLOC by the experts who selected the final translations as the most accurate and equivalent. With a view to ascertaining the relationship between the original English and adapted Gujarati versions of the MMLOC, both versions were administered to 50 married persons, with a time interval of three weeks. The scores obtained by the subjects on the Gujarati and English versions of the scale were correlated and correlation was found to be .474 ($p < .01$) with an index of reliability of .69. Thus, the results approve of the fact that the Gujarati version is an adequate parallel form.

The investigator also found the test-retest reliability index of Gujarati version of MMLOC to be .583 (N=60) with a time interval of one month. The r-value was significant at .01 level, showing that the Gujarati version of MMLOC was reliable in terms of the stability of scores.

To find out the internal consistency of the Gujarati version of MMLOC the intercorrelations among the four attributional item sets were carried out on the sample of 800. The two internally worded sets ability and effort, were strongly correlated with each other ($r = .59, p < .01$), as were the two externally worded sets-context and luck ($r = .52, p < .01$). On the other hand, the significant negative correlations were found between internally worded sets and externally worded sets, $r = -.18, p < .01$ between ability and luck sets, $r = -.20, p < .01$ between ability and con-
text sets, $r = -0.24, p < 0.01$ between effort and luck sets, and $r = -0.18, p < 0.01$ between effort and context sets. The significant $r$-values mentioned above showed that the Gujarati version of MMLOC was reliable in terms of its internal consistency.

3. The Socio-Economic Status Scale (SES)

To obtain a correct measure of socio-economic status of couples, the Socio-Economic Status Scale developed by K.G. Desai, (1984) was used. The scale was used by collecting information on items indicating socio-economic variables, viz., caste and sub-caste, occupation, education, monthly income of the family, residential facility and ownership of vehicles, as enumerated in the scale, each being assigned a specific weightage.

The scale has been standardised for use in socio-economic investigations in Gujarati by the test-author.

The income data collected for classification by Desai (1984) refers to the level of income in 1981-83, while the sample of present study refers to the period 1990-91. Hence, in the present study, it was necessary to convert the income limits of 1981-83 as given in socio-economic scale (Desai, 1984) into current prices. This conversion could be done by using inflation rate observed over the period from 1981 to 1990. The Indian Government provides various price indices to measure the inflation rate. They are wholesale price index, the implicit price deflator index, the index of agricultural labourers, the index of industrial non-manual
employees and others.

Looking into the need of the present study, all the above indices cannot be used except that of industrial workers. This is mainly because of the fact that these indices do not reflect realistically the price-rise experienced in Ahmedabad. In view of this, the index of industrial workers was used to measure the real change in income levels given in the SES scale in consultation with the Sardar Patel Research Institute based economist G.V.S.N. Murty, personal communication, January 7, 1991. The average of 1981-82-83 prices were taken as a base. The index of prices with this base for the reference months of data collection which are November-December, 1990 and January, 1991 worked out as 2.00. This factor is used to arrive at the comparable income levels for 1990-91. In other words the SES scale used here is the revised SES scale in respect to income categories (see Appendix D). The subjects were classified on the basis of their scores as middle SES group (scores from 16 to 23) and higher SES group (scores from 24 to 35), lower SES subject being very few were dropped from the present study.

4. The Marital Adjustment Questionnaire (MAQ)

This is also a verbal test having 25 items originally in Hindi (Kumar & Rohatgi, 1987) to measure the extent of marriage adjustment of individuals as well of couples.

The index of split-half reliability of MAQ is reported to be 0.70 (N = 60) and the index of test-retest reliability
is reported to be 0.84 (N = 60) with a time interval of three weeks. The face validity and content validity were also assured. The MAQ was validated against Singh's Marital Adjustment Inventory (r = .71, p < .01., with the index of 0.84).

With a view to ascertaining a relationship between the original Hindi and the adapted Gujarati version of the marital adjustment questionnaire (MAQ), both versions were administered to 50 married persons with a time interval of three weeks. The scores obtained by the Ss on the Hindi and Gujarati versions of the questionnaire were correlated and correlation was found to be 0.629 (p < .01) with an index of reliability of 0.793. Hence the results approve of the fact that the Gujarati version of MAQ is an adequate parallel form.

The investigator also found the test-retest reliability index of Gujarati version of MAQ to be 0.740 (N=60) with a time interval of one month. The r-value 0.548 was significant at 0.01 level, showing that the Gujarati version of MAQ was reliable in terms of the stability of scores.

The investigator also found split-half reliability of Gujarati version of MAQ to be 0.607 (N = 50). This test adapted in Gujarati (Appendix E) with 25 items to be responded on a two point scale (Yes - No) was administered to all 800 subjects of the sample and were scored as per key for MAQ scores separately for each individual (N = 800), as well as for MAQC scores jointly for each couple (N = 400).

To obtain MAQ score for the individual husband or wife,
'yes' responses were assigned 1 score except for items 4, 10 and 19 in which case reverse was applicable. In the same way, to obtain a single MAQC score for a couple, a score of 1 was given if both partners answered an item as 'yes' showing their agreement except for items 4, 10 and 19 in which case the reverse was applicable. The higher the total score, the higher would be the marital adjustment.

3.9. PROCEDURE OF WORK

(FOR COLLECTION & SCORING OF DATA)

Each of 800 mature, married subjects husbands and their wives, under the study was administered individually and separately at convenient time. They were requested to spare about an hour to cooperate with investigator who would like to administer a few tests to collect some important information on personal married life only for purpose of research, with an assurance that all information would be treated and kept most confidential and personal. Thus, an attempt was carefully made to establish full rapport with both spouses and taken into confidence in order to collect data on such touchy issues of married and sex life, and to get frank responses to their marriage adjustment truthfully and with least embarrassment or hesitation, as it was most essential for research on such personal life. And it was nice that most of couples cooperated with the investigator in testing.

All their responses to the test items and questionnaire
were scored as per key for each test. On the basis of scores obtained on BSRI-A, MMLOC and SES scales, the subjects were classified into various groups as mentioned earlier, BSRI-A yielding four groups viz., androgynous, stereotyped, cross-sex typed and undifferentiated; MMLOC giving two groups viz., externals and internals; and SES scale providing two groups, viz., middle and higher (in view of sample from such specific area, each classified as per criterion mentioned earlier).

Responses to the Marriage Adjustment Questionnaire (i.e., dependent variable) were scored to obtain MAQ scores separately for each individual subject as well as MAQC scores jointly for each couple as per key of the test author, thinking that perhaps, couple's score in relation to each other would be a more reliable and accurate index of marital adjustment than individual score. These scores were subjected to statistical analysis (ANOVA). Additionally, these scores were also used in classification into three groups viz., high marital adjustment (21 & above), average marital adjustment (18-20) and low marital adjustment (17 & below). Again as per test manual, frequencies of subjects in subgroups of contingency tables for corresponding designs were obtained for analysis by the Chi-square test.
3.10. STATISTICAL ANALYSIS OF DATA

As noted above, the scores on marital adjustment both MAQ scores of 800 individual subjects and MAQC scores of 400 couples—all arranged in various factorial designs as pointed out earlier, were subjected to statistical analysis by adequate statistical techniques, viz., analysis of variance (ANOVA) (Appendix F-1) as adequate to the design used, in order to examine the contribution or influence of each of main independent variables independently by themselves as well as in interaction with one another i.e., to study the overall significance of their main and interaction effects tested by $F$-test followed by test subsequent to analysis of variance viz., any of the gap tests, in the present case the Least Significant Difference (LSD) test (see Appendix F-2), which is an extension of $t$-test based on Mean Sum of Squares of Error Variance (MS error), in order to examine the significance of difference between means of any two specific groups, i.e., between mean of one level of one variable and mean of any one level of the other variable, keeping all other levels of all variables constant (same), i.e., to study simple effects (Patel, 1979).

In addition, the frequencies in contingency tables (parallel to corresponding experimental designs for ANOVA) formed hereby groups of different independent variables in relation to groups (high, average and low) formed by marital adjustment variable (only in case where main and interaction
effects were found significant in ANOVA) were subjected to non-parametric test of significance, viz., Chi-Square test (Appendix F-3) in order to find out whether marital adjustment was independent of or related to the variable grouped in the contingency table. This additional exercise in methodology (Chi-square test) was carried out simply for checking and confirming broadly the results arrived at through ANOVA procedure.

Further a few correlations of importance between some variables under study were also obtained by applying Pearson's Product Moment Correlational Technique (r) (Appendix F-4) as well as Contingency Co-efficient (C) (see Appendix F-5) based on chi-square, again for comparison and confirmation of results by different methods. All these results have been summarized, tabulated and discussed in next chapters.