CHAPTER 4
DESIGN, PROCEDURE AND METHODOLOGY

4.1 INTRODUCTION
The concept of development is fundamentally biological. The connotation of development involves two essential components: the notion of a system possessing a definite structure and a definite set of pre-existing capacities. Education is seen as being, at least in part, the intentional transmission of knowledge and understanding in order to develop the powers of thought of the recipient. Schooling is a particular type of experience which gives rise to certain forms of cognitive growth in that it is largely symbolically transmitted. From one point of view, the entire educational system consists of a graded series of socialization experiences which eventually bring the child to adulthood with notions of right and wrong, good and bad. Child's progression is continuous rather than stepwise. Ages and stages are to begin with artificial ways of dividing and compartmentalizing the essentially continuous process of growth and development, but they are the best boxes we have been able to devise to contain parts of the total movement of life. These are arbitrary ways of classifying segments of behaviour. (McNeil, 1988, pp85). The concern
of developmental psychology is to understand these changes in ability and behaviour which are associated with age. Age itself cannot be regarded as an explanatory variable, growing older does not cause behavioural change. Chronological age is simply a convenient way of measuring the passage of time since birth, but the mere passage of time does not explain behavioural change. It is for this reason that age is sometimes referred as a carrier or index variable, a dimension within which the processes which do cause behavioural development may be located.

In the present study, education is considered as an index variable constituting a dimension within which all the processes—experiential, maturational, physiological covary with increasing age. Each educational level represents a developmental stage.

The researcher has arbitrarily chosen the last year of each educational level. Xth std—last year of schooling XIIth std—last year of higher secondary—both denoting adolescence, third and last year of undergraduate level and part II of postgraduate level—both denoting early adulthood. "Adolescence is characterised by forming new and mature relationships"
with members of opposite sex and of playing the approved role for one's sex. The motivation to do so comes partly from social pressures, and partly from his interest in sex" (Hurlock, 1975, PP 191).

With this view the researcher has included the adolescent and early adulthood developmental levels.

Testing the hypotheses elaborated in the chapter necessarily involved use of appropriate research strategy, selection of suitable study methods, use of well-tested tools and techniques, choice of suitable sample of subjects, working out and implementing study schedules, organisation of the obtained data and lastly, application of proper quantitative and statistical techniques for the analysis and interpretation of the data.

4.2 Variables:

Dependent Variable:

Sex role development is the dependent variable in this study.

Independent variables:

There are three sets of independent variables:

i) Educational level.

ii) Sex

iii) Socio-economic status.
Intervening Variables:

There are 3 sets of intervening variables:

i) Self perception

ii) Value

iii) Occupational interest.

Operational definitions of variables:

Sex Role Development: The derived scores of masculinity, femininity and designated score of androgyny.

Self Perception: The single score obtained on DAS-FORM A Test.

Value: Six value scores obtained on comprehensive value scale.

Occupational Interest: Twelve occupational interest scores obtained on IVGSII.T.

Educational level: stds Xth and XIIth, UG (last year of graduation) and P G. (last year of post-graduation)

Sex: girls and boys.

Socio-economic status: the score obtained on socio economic scale.

4.3 Selection of suitable research strategy -

The most suitable research strategy can be selected on the basis of the nature of the problem, related research in the field and the available resources (Runkel & McGranth 1972; ICSSR 1981).
The author wanted to study the relationship between sex-stereotypic orientation and personality and personal social variables. Correlational approach is one way of studying these variables. Correlational techniques specify the degree of relationship between the dependent and independent variables, and also allow the investigator to predict the level of one variable on the basis of the knowledge of other variables correlated with it. Correlation makes prediction possible (Wood, 1974). However, correlation by itself is not an evidence of causal relationship. (Wood 1974, Harmon 1978).

Causal comparative approach is at times used to study subject variables, depending on the level of measurement, statistical techniques like chi-square or analysis of variance can be used to interpret the data. Robinson (1981) calls such an approach as ex-post-facto-approach.

Wood (1974) said that there is no harm in using either correlational or experimental approach (causal comparative) for studying the subject variables but cause-effect conclusions on the basis of the manipulation of the subject variables can not be drawn. Scanning through various research articles published in the area of social science research makes us realise
that most of these researches have used either
correlational or causal comparative approach.

On the basis of relevant research projects we decided
to interpret the data collected by testing 500 students
by using causal comparative research strategy.

4.4 Methods of data collection.

Proceedings of the seminar on 'methodology of social
science research' have been reported by Dasgupta
(1984). Observational method was considered to be
essential for all types of studies. Questionnaires and
interviews were considered to be useful for surveys.

Projective technique and sociometry were considered to
be useful for specific purpose. However, the
participants in the seminar considered the evaluative
methods like psychological testing to be basic for all
studies in action research and experimentation.

In the present study, the author wanted to evaluate the
developmental changes of sex stereotyping and relate it
to the self perception, values, SES and occupational
interests of the students. Hence she selected
psychological testing as a primary method of data
collection.
In addition to psychological testing, questionnaire method was used to collect information on demographic variable.

The psychological testing is being used in India as the main method of data collection (ICSSR, 1981). Case study or interview methods are not generally used for studying the psychological behaviour because of the subjectivity of the result obtained and because they are time consuming. All the discussion point out to the use of psychological testing as the most appropriate method of data collection in such studies and it was used in the present study.

4.5 Selection of tools.

It is preferable to use available tools if they are appropriate, relevant, reliable and valid for measuring the variables under consideration because standardizing is quite difficult and time consuming task (Nattal & Ivey 1978).

The investigator had to select from some foreign and some Indian tools and construct some others to meet the requirements of the present study.

Tools are normally selected on the basis of interest, objectives, their use in the projects similar to the
one under consideration, conceptual relevance to a large body of theory and their being non-offensive to the general public (Nattal & Ivey, 1979). All these above mentioned points were taken into consideration while selecting the tools for this study.

4.5.1 Tools used in the study

Five appropriate measures were selected and were administered to the students during data collection.

The focus was to obtain relevant and complete data from the respondents. The names of the selected tools out of those available are as follows:

1. DAS-FORM A - A device for self perception.
2. BSRI or BEM'S SEX-ROLE INVENTORY - Designed by Sandra Bem
3. SES: Socio Economic Status by Prof. Jogawar.
4. CVS: Comprehensive Value Scale, designed by Dr. K G Agrawal
5. IVOSIIT, designed by Mrs. V Paranjape

4.6 Description of the selected tools

4.6.1 DAS - FORM A.

This standardised device intends to measure an individual's self perception. It contains 40 statements. It is a seven point scale ranging from 'totally agree' (1) to 'totally disagree' (7) the
inbetween alternative is neutral corresponding no. 4.

After reading each statement an individual has to answer by marking against it the number which corresponds to the extent of his agreement or disagreement. The range of scores is 40 to 280, score 40 denoting lowest score and so lowest degree of self perception, 280 denoting the highest degree of self perception.

The statements are worded in such a way that there was less chance of either 'exaggerating' or 'over reacting' or even 'neglecting' the statements. Secondly 'halo effect' was minimised by mixing 'negative' statements among 'positive' ones. 'Positive' here means those in which higher score corresponds to higher degree of a trait. Negative as opposite to it, means grammatically affirmative sentence but psychologically negative one. As a result the method of scoring was reversed in case of these sentences.

The distribution of negative sentences randomly over a scale, served two purposes, one, to avoid to go to extremes which is a general tendency or to stick to a particular point while answering. Secondly it increased a respondent's carefulness before answering. All these facts made the device a very useful one.

4.09
4.6.1.1 Administration & Scoring.

As mentioned before, there are 40 items. It takes approximately 15 minutes to completely solve the test. The instructions were printed on the first page with an illustration.

The proportion of 'negatively scored' items is 1:4, that is, in all there are 10 out of 40 items of this type. While scoring these items, the scores have to be respectively shifted to the opposite direction. For example, if against a statement of this type, a subject has marked under no.2, i.e., 'agree very much,' this answer has to be shifted to no.6, i.e., disagree very much. So score 6 is to be considered and not 2. All the negatively scored items were first corrected, and all the scores against all 40 items were added up. The total time for scoring required was 8 minutes.

4.6.1.2 Instructions - The role of instructions in any kind of psychological research is of motivating students to express what is expected from them. They should neither be discouraging to remain aloof nor encouraging to 'over-react' on the part of a respondent. A respondent is expected to be serious, honest, and thoughtful while answering these tests.
The investigator in order to establish rapport, express confidence and satisfy curiosity, instructed in the following words:

"Here is a questionnaire which I am going to present to you. It is a simple measurement of your attitude towards life in general. After reading each statement you are supposed to mark the appropriate answer. Though this is not time bound test, you are expected to finish 40 items. True answer is more valuable than quick answer. Do not mark more than one answer and do not leave any item".

4.6.1.3 Reason for selection:

The author wanted to study self perception in relation with sex, sex role orientation and also socio economic status. Mead (1934) developed the idea of feedback in suggesting that self perception actually develops in a context of social interaction and is largely influenced by the feedback an individual gets from others. Mead also contributed to the idea that self perception is of various roles one plays, and is hierarchical in that some of these dimensions are more important than others.

There are several scales available for measuring self perception. Some intend to study a particular aspect of
self (e.g. spiritual or moral) Some others are meant for a particular segment of population say, school going children.

All these emphasise one aspect of self perception or the other. The author needed such a scale that measures overall attitude toward self, developed through the familiar problems, thoughts encountered by an individual. Out of available tests, the researcher thought this would be a most suitable for the purpose.

4.6.2 Bem's Sex-Role Inventory:
Sex role development denotes the development of the attributes (behaviour, characteristics, emotional responses, attitudes and beliefs) in a given culture. The development occurs with the process of sex-typing. This process is the link between the ascriptive act by the society and the role performance by the child. Sex-typing is a complex process. Sex typed or sex appropriate behaviour, emotions, characteristics, beliefs and attitudes, overt as well as covert, are the products (or outcomes, derivatives or consequents) of this complex process.
Sex role orientation has been defined as the degree to which individuals view themselves as masculine and feminine. It refers to the clusters of masculine and
feminine characteristics. Generally BSRI measures an individual's sex role orientation. However it assesses his/her androgyny. About which Bem herself has pointed out in these words, "which reflects the relative amounts of masculinity and femininity that the person includes in his or her self-description and as such it best characterises the nature of the person's total sex-role" (Bem, 1974).

In her paper 'Androgyny and mental Health' at the meeting of American Psychological Association in 1973, Bem showed that the BSRI could predict sex-typed behaviour.

Behavioural validations of sex role constructs reported by many researchers appear useful (Brown 1958, Bem, 1975, Berzins, 1975, Spence et al, 1975, Bem & Lenney, 1978, Bem, Martyna & Watson, 1976, Kelly et al, 1978; Welter, 1975, Lamke, 1982, Bell et al, 1984, Quackenbush, 1989.) and others. They lend support to the notion that masculinity and femininity are actually skills or competencies that can be used as individuals interact with their social environment.

The researcher used BSRI with the assumption that it characterises the person's total sex role which is hypothetically linked with self perception, values and occupational interests. In order to observe the changes
in these constructs at different developmental levels, the researcher pooled the sample cross-sectionally from different developmental strata.

It is a self-administered hand-scored scale. It contains 60 personality traits; 20 masculine traits, 20 feminine traits and 20 neutral traits which are neither masculine nor feminine and which are neutral to sex. The BSRI asks a person to indicate on a 7-point scale how well each of the 60 masculine, feminine and neutral personality characteristics describe himself. The scale ranges from 1 (never or almost never true) to 7 (always or almost always true) and is labeled at each point. On the basis of these responses each person receives three major scores: a masculinity score (mty), a femininity score (fty), and most important an androgeneity score (andty).

Generally the word 'Androgyny' meaning the state of being androgynous is used in similar kind of researches to devote the characteristic of both sexes. However the researcher preferred the word 'androgeneity' (or androgeneity) to show the psychological trend in individuals. Both words are synonymous (Webster's third International Dictionary, 1971, PP 81).
The masculinity and femininity scores indicate the extent to which a person endorses masculine and feminine personality characteristics as self descriptive. Masculinity equal the mean self rating for all endorsed masculine items and femininity equal the mean self rating for all endorsed feminine items. Both can range from 1 to 7. These two scores are logically independent.

BSRI characterizes a person as masculine, femininé or androgynous as a function of the difference between his or her endorsement of masculine and feminine personality characteristics. A person is thus sex typed, whether masculine or feminine to the extent that this different score is high and heis androgynous to the extent this difference score is low.

Masculinity and femininity scores are logically independent that is the structure of the test does not constrain them in any way and they are free to vary independently. The androgeinity score is the difference between an individual’s mty and fty normalized with respect to t ratio value 2.322. Bem has given a formula for calculating an individual’s androgeneity score as $(fty-mty) \times 2.322$ = Index of Androgeneity.
The use of a t-ratio in the index of androgeneity rather than a simple difference score, has two conceptual advantages.

1) It allows us to ask whether a person's endorsement of masculine attributes differs significantly from his or her feminine attributes and if it does, to classify that person as significantly sex-typed, and 2) It allows us to compare different populations in terms of the percentages of significantly sex-typed individuals present within each.

It should be noted that the greater the absolute value of the Andty score, the more the person is sex-typed or sex reversed. A 'masculine' sex role thus represents not only the endorsement of masculine attributes but the simultaneous rejection of feminine attributes. Similarly, a feminine sex role represents not only the endorsement of feminine attributes but the simultaneous rejection of masculine attributes. In contrast, the closer the andty score is to zero the more the person is androgynous. The 'androgynous' sex role thus represents the equal endorsement of both masculine and feminine attributes.
On the basis of Bem's conceptions of sex role identities, an individual can be classified under one of the four Assigned sex categories.

The researcher used median split technique to males and females as their own separate reference groups in defining sex role category rather than combined median as generally done. This was considered more appropriate. The investigator's decision was based on the following considerations. First, as a group males will score higher on masculinity than females, whereas females as a group will score higher on femininity than males. Combining the two sexes, under such circumstances would be inappropriate. Second, to refer to a female as masculine, for example, implies a comparison. The intended meaning in this study is that the female is behaving more like a male than females typically behave. Therefore the same sex is the appropriate reference group for establishing cut off points. As a result there are four sex role categories within each gender.

1) Androgynous - whose both masculine and feminine traits are higher than the respective median of the group.
2) Sex-typed - whose own sex trait is higher than the respective median of the group and opposite sex trait is lower than the respective median of the group.

3) Cross sex typed: whose opposite sex score is higher than the respective median of the group.

4) Undifferentiated - whose both masculine and feminine scores are lower than the respective medians of the group.

From this discussion it is clear that sex typed males score higher on masculine traits. Cross sex typed males on the other hand score higher on feminine traits. Likewise sex typed females score higher on feminine traits and cross sex typed females score higher on masculine traits.

According to the norms provided by Bern, males tend to score significantly higher on mty scale and females tend to score significantly higher than males on the fty scale. As a result males score on negative side of zero and females tend to score on the positive side of zero. In other words, in a given male population most of the males are inclined towards mty rather than fty. Therefore the androgeinity index will be towards -ve side of zero to the extent of androgeinity of the whole male population. Similarly in females because most of
the females are inclined towards fty rather than mty, the androgeinity index, drawn with the formula would be on the positive side of zero. This fact proves to be crucial while males and females are compared with each other mixed population.

While comparing males with females, assuming the mathematical sign as an indicative of predominant characteristic, absolute value is to be compared. In a mixed population the sign of androgeinity index will show both the extent, and inclination or tilting of one of the two traits in total population.

4.6.2.1 Administration and Scoring

The time taken to administer it was approximately 15 minutes. The investigator tried to explain the difficult words like 'theatrical' 'gullible' etc. at the time of administration of the test. This she could anticipate on the basis of her experience at the pilot study. The arrangement of 3 trait items is in this order - masculine, feminine, neutral. So first, items were classified under these three headings and mean scores for them were counted for each subject. 3 scores thus computed for each subject.

The measures of neutral or social desirability were not included in the present study.
On the basis of masculinity and femininity scores of each individual, androgeinity index was found with the help of the formula mentioned before.

In order to find out assigned sex category of each individual median-split method was used. Total population by sex was thus classified into 4 categories viz. Androgynous, sextyped, cross-sextyped and undifferentiated.

Scoring of BSRI requires 10 minutes if done manually.

4.6.2.2 Instructions for BSRI were like these:

'This test expects us to evaluate ourselves. Normally we all judge other people and not our own selves. Again we judge them in terms of traits that is normal tendency of behaving in most of the situations, most of the time. After reading each trait or characteristic or adjective in general terminology, imagine how far it describes you. There are seven alternatives provided against each trait, while 1 means almost never, 7 means always, & no.4 denotes 50% occurrence.

4.6.2.3 Reasons for selection:

After factor analysing BSRI, Gaudreau(1977) comments that "BSRI does not appear to suffer from the same weakness as traditional masculinity-femininity scale that is- (a) the scale successfully differentiated
between masculine males and feminine females, and 
(b) when items were factor analysed, they loaded on two 
common factors (masculine and feminine)."

The Bern Sex Role Inventory (BSRI) contains a number of 
features that distinguish it from other commonly used 
masculinity - femininity scales. (e.g. CPI - California 
Psychological Inventory or the Guilford - Zimmerman 
Temperament survey). It includes both masculinity and 
femininity scales. It is founded on a conception that 
there are not bipolar ends of a single continuum but go 
hand in hand in some individuals.

Secondly characteristics or traits were selected as 
masculine and feminine on the basis of sex typed social 
desirability and not on the basis of differential 
endorsement by males and females as most other 
inventories have done; which automatically build in 
inverse relationship between masculinity and 
femininity.

Thirdly the concept of androgyny developed through BSRI 
best characterises the nature of the person’s total sex 
role.

BSRI (original) is widely used tool to assess 
masculinity femininity and androgynoity by several
Indian researchers (Tanwar & Sethi, 1986; Agarwal & Agarwal, 1988; Komal & Sethi, 1989). The researcher preferred to use the original version of BSRI with due consideration to the characteristic sample of Bombay city. This city is more influenced by western culture and currents than most of the other parts of the country.

Therefore this test was decided to be used as one of basic techniques to measure the extent and the type of students' sex role development. The concept of androgyny was utilised to compare sexes and different levels of education and also different socio economic classes in relation to their incorporation or internalization of opposite sex traits.

4.6.3 SES or Socio-economic status scale.
This is a standardized socio economic status scale designed by Prof. Jogawar. It is used in several research endeavours.

There are 6 items. A respondent has to mark the correct answers.
Socio economic status is a social science concept. It is assumed that neither social status gained through caste (especially in India), class, appearance, contacts etc. nor economic class gained through
material wealth, money, etc. is enough to classify people. This classification is not able to give us idea of one’s cultural environment or cultural index of society at large. Both together provide a correct judgement over an environment one is brought up in.

Items of the tests were selected alter considering these four factors:

i) Financial position of the family,

ii) Education of the parents,

iii) Occupation of the parents and

iv) General cultural atmosphere in the family and the participation by the parents in the cultural activities of the town.

The inventory was standardized on the sample of 82 individuals (35 boys and 47 girls) comprising all three socio economic classes. The reliability was found with Pearson product moment correlation. It was .97. Validity coefficient was .69.

4.6.3.1 Administration and scoring

The time to complete the scale is around 5 minutes for grown ups. The item wise scoring is given below.

Item 1: 1 score if the individual stays in rented house or a Govt. quarter

2 if he stays in his own house.
Item 2: 1 Score per room
Item 3: 1 Score each for a, b, c
      3 Score for d.
Item 4: 1 Score for each article
Item 5: 0 score for item 1
      1 Score for item 2
      2 Score for item 3
      3 Score for item 4
      4 Score for item 5
      5 Score for item 6
      6 Score for item 7

Item 6. Father's Occupation.

Government servant.
      Score 5 for class I gazetted officer
      Score 4 for class II gazetted officer
      Score 2 for class III
      Score 1 for class IV

Teacher
      Score 5 for university teacher
      Score 4 for College teacher
      Score 3 for high school/junior college teacher.
      Score 2 for middle school teacher
      Score 1 for primary teacher
Professionals
Score 5 for Doctors, Engineers, Industrialists.
Score 4 for Lawyer, big business
Score 3 for big shopkeeper, actors, musicians,
Small Scale Industry.
Score 2 for small shopkeeper
Score 1 skilled labourer
Score 0 unskilled labourer
Mother’s occupation is same as father’s occupation.

Item 7 : 1 Score for each yes answer.
Item 8 : Always-3, Sometimes -2
        occasionally -1, never -0.

The range of possible scores on this inventory comes to 2 to 83.
The range of the scores of the individuals falling under each of these classes are
Lower from 2 to 40
Middle from 40 to 60
Higher from 60 and above.

4.6.3.2 Instructions
As the scale does not contain any instructions, the investigator had to provide some guidelines to especially school students.
I want some information regarding your family background, about your parents etc. You have to mark the correct answer. If you have any doubt regarding the meaning of any item please ask me & then proceed.

4.6.3.3 **Reason for selection**

Although all socio economic scales incorporate both kinds of items - one social or cultural and other economic. This scale found to be more clear and specific to the researcher. It proved true when she decided to administer to the primary level students.

4.6.4 **CVS or Comprehensive Value Scale by Dr.K G Agrawal, 1979.**

Though controversies prevail over defining ‘value’ all of them agree that they are the compass which gives every individual direction how he should act as well as how to interpret others’ reactions.

A value system is an organised set of preferential standard that are used in making and invoking social sanctions and coping with needs and claim for social and psychological differences of choice made or proposed.

Using 38,000 responses on 30 value concepts 27 bipolar scales, factor analysis was carried out and six
principal component factors were identified. Based on the factor analyses data, a short scale was developed. Each factor was represented by 5 scales and there was overlapping of scales as well, since some scales were common to more than one factor.

Octant analysis could help to observe that ideology divided the concepts in three groups—negative, positive, and neutral. Distance function analysis of various concepts indicated high validity of value scale since most distances were in the expected direction.

Intercorrelations between all the 30 concepts were significant.

This scale contains six principal factors identified as refinement, conscience, stability, power, masculinity/femininity, and political ideology. The number of items is 30 divided in 6 factors. 5 for each factor. They are used to form bipolar semantic differential type scales with a 7 step scale in between the two poles. There was some overlapping of some items scales since some items more common to more than one factor. In all there were 23 items out of which 7 are overlapping.

Considering the controversy over total number of values, we might only say that all values are not
universal and they cannot be limited to a fixed number. One has to identify such values as may be prevalent at a given time in a given culture.

In order to measure values and also to identify their dimensional structure semantic, differential technique like C.V.S. is proposed.

4.6.4.1 Administration and Scoring

The students found it relatively easy to fill in. They took not more than 5 minutes to finish it.

Scores are computed by assigning +3 to positive pole and -3 to the -ve pole. The following scheme is followed +9 : +2 : +1 : 0 : -1 : -2 : -3 negative pole scores for scales in each factor are added up to form factor scores. In this manner, 6 factor scores are obtained for each respondent.

4.6.4.2 Instructions

The mode of answering of this CVS scale was little different from other psychological tests. It required a slight guidance from the investigator. This was in these terms:

'This is to judge your values. On each row there are two opposite values are given. You have to select proper alternative out of 7 alternatives given in between. As the middle one indicates equal preference.
to both, the next alternative on both the sides of zero indicates a little preference to nearer value. The extreme alternatives suggest the total preference. Your job is to not just to decide a pole and the degree but to weigh between the two poles and assign a true alternative.

It was found out during pilot study through students' open remarks and feelings that they will easily pose 'positive' through answering on the obvious positive poles of a factor. The investigator, therefore, added few more words in instructions, 'all of us like to have positive values but not all the times. Sometimes we often like and are guided by negative or socially undesirable values. This fact please be kept in mind while choosing an alternative.

'Lastly, you have to indicate only one alternative of 7 alternatives.'

4.6.4.3 **Reason for selection**

Values being standards for decision making it is perhaps possible to isolate values that are work specific from general values. This study was particularly interested in measuring general values and this scale emphasizes general values and that too with their dimensional nature.
Semantic differential technique is basically used to tap psychological/affective/connotative meaning of concepts/symbols/objects etc.

In other words, in order to be able to measure values and also to identify this dimensional structure, CVS could identify value structure provided value measure to all kinds of symbols concepts, objects etc. and in addition provide an effective measure to rank value concepts, symbols etc. more reasonably than mere ranks. This scale also includes masculinity - femininity as one of the dimensions in providing standards for decision making.

4.6.5 **IVSIIIT or 12-Field Interest Inventory by Ms. Paranjape**

Interest is a tendency to become absorbed in an experience and to continue it. Interests are dynamic. Interests therefore can not be defined just in terms of the objects and activities which get attention and yield satisfaction but also in terms of the strength of the tendencies to give attention to and seek satisfaction in these competing objects of interest.

These have been four major interpretations of the term interest concerned with as many different methods of
obtaining data. Interest areas are classified as
1) Expressions  2) manifestations  3) Tests and
4) Inventories. The last and 4th one is the relevant as
far as our endeavour is concerned. Here, interest is
measured by lists of activities etc. to which the
subject responds on the basis of his like or dislike.
These interests differ from professed interests in
being more subtle, valid and less subjected to ‘faking’
as in the inventory every possible response to every
item is given an experimentally determined weight and
the scores on the various items are added to give total
scores for various activities. Research has shown
interest assessed by this method to be rather stable
not only in mature individuals but also in adolescents.
The test was standardized on a sample of more than
thousand boys and girls of Bombay city.

The 12-field Interest Inventory consists of pairs of
occupations and activities. There are 88 questions,
each question has two parts, a) and b). From these
questions students have to indicate their personal
preferences on a separate answer sheet by writing
appropriate numbers in the boxes. These questions are
on the various fields (12) of occupation.
4.8.5.1. Administration and Scoring

There is no time limit for this test. The test takes approximately 20 to 25 minutes.

After the administration of this test, scoring was completed in the following manner. The scores for each of the vertical columns were added thus getting 12 total scores representing the 12 fields.

There are 11 statements for every field and the maximum score for each statement is 3 and minimum is zero. So according to this scheme on any field the total maximum score will not exceed 33. The sum total for all the fields will not exceed 198. In this way all 400 answer sheets were scored. It takes 10 minutes to score each answer sheet provided the total of each item (3) filled in correctly by the respondent.

In order to eliminate the occurrence of same preference over more than one occupation (which was evident in case of these test scores), the investigator used the weighted scores on substitutes for raw scores. The highest preference was denoted by 12 and lowest by 1. The total of a subject's weighted scores is 78 (12+11+10+.....+2+1).
4.8.5.2 Instructions

As the instructions were clear on the original inventory, only little help was provided by the investigator. Through pilot study it was learnt that students have doubts when they cannot make a choice between two occupations, they tend to give wrong marks which makes scoring a tedious job. So regarding this point only, the instructions were given.

"If you feel two fields to be equally attractive or unattractive, then please think again and try to make a choice but do not leave item unanswered."

They were asked to check their answers before handing over.

4.8.5.3 Reason for Selection

The life of society has much importance for the common interests people hold because the social organization depends on this. A knowledge of this is necessary for the strengthening of society and the prevention of disorganization or for an understanding and improvement of human relations.
The present study aims to study the common occupational interests among males and females and also among males and females with different sex role development.

There are ample tests available mostly in adapted form to measure occupational interests. Some are the check lists in which the respondent has to check a field of interest in a long list of occupations. (Margaret Happock) strong’s vocational interest blank in mainly used to discover potential successful person in a particular occupation. Another type is a list of description of the environment of the occupation as well as a description of necessary activities. Mostly they are meant for vocational guidance.

The main reason for selecting this test was that the study encompassed the postgraduate as well as school children. The need arose that the activities involved in the inventory should be known to even school children and language and the concept behind that occupation must be understood by all.

This test was standardized on the boys and girls of Bombay city which further confirmed the selection.
4.7 Pre-Pilot and Pilot Study

Pre-Pilot Study

Few students of varying educational levels (upper) from the neighbourhood were presented with standardized tools meant for upper levels. The purpose was, before going for pilot study the reaction of the students, their level of motivation to fill up various tests etc. can be understood beforehand so in pilot study the initial difficulties can be overcome and the investigator would be more familiar with the procedure.

Pilot Study

Pilot study was conducted on 5 final year students of all five levels of education. The same tests were administered to the upper level students which were later used for the main study.

4.8 Selection of the Sample

The present study is concerned with investigating differential sex stereotyping in males and females with its developmental aspect. It implies males and females in different developmental phases should be included in the sample. Educational level best characterizes the expected development for the study. four educational levels namely secondary, junior college, senior college and university were decided. To standardize further, final year of every level was
decided. Besides, in each level equal number of boys and girls i.e. 50 girls and 50 boys was fixed for the final study. So overall sample consists of total 500 individuals with equal number of males and females in it.

As the study was not restricted to particular faculty, class caste or religion, but only a community, it was certain that the sample in fact should represent a larger population.

Generally the sex role stereotypes in technologically advanced cultures are quite similar. Yet there are substantial variation in cultural sex roles and their accompanying stereotypes (Margaret Mead, 1949). This cultural dimension could have been partly controlled by including any one culture embedded with one language, geography, folklore & literature. This factor was thus taken into consideration by including only one culture namely Maharashtrian.

It was impossible to go all over Maharashtra and collect educational stratumwise data. The next and best alternative was to take this sample from the city of Bombay. Everybody knows that not only the different parts of Maharashtra but even different parts of India are well represented by its population. Being commercially and economically in the forefront and a
capital of the state, Bombay is flooded with the people from all corners of Maharashtra.

In order to choose a random sample within a stratum, efforts were made to select the educational institutions municipal zonewise so that different socio economic standards are aptly represented.

4.8.1 **Various Sampling Strategies**

The sample is a smaller representation of the large population. In order to ensure reliability and validity of the results, a researcher must select a sample that is adequate and representative of the population under consideration.

Statisticians have worked out several procedures for selecting sample. Depending upon the purpose of investigation, the composition of population and other considerations, social scientists employ several methods of combinations of different methods of sampling (Winer, 1971).

According to Dubois (1965) random sampling, stratified sampling and area sampling, are three important techniques of sampling.

Besides this, there are many different sampling plans. Some of these can not be classified but they can be used to develop groups from which the characteristics of the population can be inferred. (Dubois (1985)).
Stratified sampling is a convenient and a fairly popular sampling technique used by the social psychologists. This technique involves the classification of population on the basis of certain predetermined strata and then studying the requisite sample from each stratum.

4.8.2 Characteristics of the samples:
It is a stratified random sample consisting of 200 males and 200 females distributed over 4 educational levels. Out of these 4 levels, 1 level is of school and next two i.e. JC & UG are from college, and P.G. is from university or institutions providing post graduate courses like IIT or medical colleges or Royal Institute of science.

In case of schools the choice was tremendous and therefore difficult part of the problem was solved by selecting only Marathi medium schools. Tests in English were administered. But still considering the vastness of a city and expansion of education, this choice too was not very easy. As it was decided to take up only 10 subjects (5 girls, 5 boys) from each school. The no. of schools and colleges was limited to 10 per level. With a view to include different parts of Bombay equally, the investigator sought help of educational
inspector's office to procure zonal lists of schools and colleges and selected only 2-3 schools and 2-3 colleges for a level from each zone (in all 3 zones) depending on the size and availability of sample. The list of institutions is presented in Table 4.2.

The number in each institution at a particular level though decided to restrict to 10, it has got slight variations because even after setting everything, somebody or the other has to remain absent or leave in the middle etc. At school level mostly it is followed but in colleges the exact number of Maharashtrian boys and girls as needed was not possible to get in few cases.

About P.G. level various other departments apart from Marathi department were tapped for Maharashtrian students. Arts and science faculties were included. Besides IIT medical college and Govt. college of education was tried, apart from medical college the other two institutions were able to provide some help.

Our sample includes all three SES, constituting lower class as largest, then middle and higher class as as smallest. If it is true of larger population then we can say that at least from SES point of view, sample seems to be representative of larger population.
4.9 Data Collection

4.9.1 General Plan

After initial decision to select a particular institution, next step involved contacting the authorities, explaining to them the objective & requirement from their institution for the project. If they approve (most did after doubts were cleared then 10 students who are mainly sincere & mature enough to complete the required procedure in a desirable manner were asked for. Time of testing was mutually decided and that particular day before the scheduled time the investigator managed to reach there, inform the authorities and get the arrangements done.

Initial 5-10 minutes were devoted to establish rapport with them. Many students were curious to know as to what is to be assessed of them, whether they will get back the results etc. The researcher promised them to give results if wanted. Some of them were little apprehensive as they knew of psychological tests as tests of only intelligence and projective techniques. But doubts were cleared before beginning by giving general idea about the procedure though not specific.

4.8.2 Test administration.

Before presenting the different tests the students were seated with some distance from each other so that
interference would be minimum. Since the investigator was alone to supervise the session, she was able to handle the situation as she wanted and was able to bring uniformity in her behaviour which counts in psychological testing. As there are hardly more than 10-12 students at the most she could attend each and every respondent and solve their difficulties if any. The subjects were asked to put their details before proceeding. In all 5 tests were administered one after the other. Care was taken that unless whole group finishes the first test, nobody begins to solve a next one. The tests were administered in fixed order. The order was decided after the investigator did the pilot study. As all the tests are not uniformly alike in length and difficulty the order was kept with these considerations.

i) DAS-Form-A: Being the first test in a set mostly lower educational level children had to be explained the arrangement of alternative answers. Some of the statements more found little difficult or/and tricky by the subject. Without giving any hint to answer, it was translated by the investigator using different words. The language and tact of the researcher were both put to test.
It was also taken care of to see that no one marks only or mostly neutral answers or perhaps the same kind of answers. This was immediately checked by just looking at the paper.

Whenever anybody was found to be stuck at a particular statement, the investigator used to attend personally and ask him to complete it later and to go on to next item. No statement is unanswered, was also checked at the end.

ii) CVS or comprehensive value scale:
As mentioned earlier, this bipolar scale requiring different mode of answering. This was explained elaborately by writing on the black board so that everyone could follow.

As some value concepts involved also devalues or negative values and people by and large try to pose themselves as socially desirable than undesirable, the investigator was rather doubtful on getting honest answers specially on these negative values, the instructions formed a very important part of the administration of this test which are given in the description of administration of tests.

Care of incomplete or untrue answers was taken similarly as DAS-Form A.
iii) BSRI - Bem's Sex Role Inventory.

As this test was the most important test as far as this study is concerned, utmost care was taken to see whether subjects solve it properly or not. Rating that is ranking the answers was little obscure especially to lower level girls and boys. So in clarification definite terminology in percentage for each alternative answer was provided. The scales ranges from 1 (never or almost never) to 7 (always or almost always), the investigator termed the 7 alternatives (in Marathi) and also in percentages like, ranges are from

1 means - 0-10% of total times
2 means - 10-25% of total times
3 means - 25 - 40% of total times
4 means - 50% of total times
5 means - 60-75% of total times
6 means - 75-90% of total times
7 means - 90-100% of total times.

It is rather unmathematical and crude way of assigning the grades of answer but they proved to be useful in getting understandable answers.

The scale was found to be very interesting to the students. However many of them expressed that, 'it is difficult to assess our ownself than others and so we have put in great efforts in completing it.'
This itself was indicating the reliability of the answers.

Some of the traits were found to be difficult for the respondents. Also, sometimes they found some words difficult to understand. As and when they confronted with difficulty, the investigator provided with synonyms which she had thought of beforehand. The intention was not to affect answers due to changed word. Again every word can't have a right synonym; in that case illustrations were kept ready to sound & emphasize the correct connotation. In short, care was taken that due to minor difficulties or lack of understanding of the language used, the answering pattern should not get affected.

iv) S.E.S.

This is a standardized test. Not many instructions were required. But some points, the investigator wants to mention.

The material or economic standard is often judged by a number of possessions. Many subjects were found to possess many things which are not mentioned in the test.

Many students especially from lower SES and lower levels of education were not aware of their parents’
education and designation. So being familiar with this before at the time of pilot study, necessary care was taken by the investigator.
Whenever the respondents found difficulty in understanding, they used to ask the investigator. Otherwise this test did not involve much of guidance.

v) IVGSIIT or 12-field interest inventory.
In the first place, care was taken to see that nobody writes on the question paper as the test involves separate answer sheets. The questionnaire on the left side and answer sheets on the right side was desirable, so this was pointed out to them. In case of left handed persons they were asked to arrange the paper in a reversed fashion. Everytime the respondent used to read each item with two occupational activities, judge and weigh and assign marks as instructed.
Pilot study had illustrated how respondents in haste or carelessness assign mark wrongly and whole assessment goes wrong. The investigator went to each respondent to see whether he answers correctly or not, leaves any item unanswered etc. As far as complexity is concerned, this scale was simple but lengthy and students were likely to make some mistake here and there which brings difficulty in
scoring, so utmost care was taken to see that subjects fill in a little complicated test in a correct way.

4.9.3 Precautions taken

Since control of the context is important in judgement tasks (Runket & McGrath 1972) some precautions are necessary to minimise the foreseen errors.

1) Only those who speak most of the time Marathi at home were selected in the sample.

2) It was seen carefully that no student talks to her/his friend/s once he/she begins to fill up the test.

3) Students were asked before the beginning whether they would be able to complete the tests. Otherwise they were politely requested not to appear for the session.

4) The investigator did not reveal those facts about her research work which would affect respondents' answers in any way. But when asked out of curiosity by the students, the investigator assured them to tell them after the session.

5) The instructions given by the investigator were followed to the last detail.

6) Complete silence and work-oriented attitude was maintained throughout the session.

4.46
7) The investigator took special care to establish rapport with the students in order to get them involved in the test session.

4.9.4 Difficulties faced

The procedure of data collection was laborious but not tedious. On the whole students were enthusiastic and cooperative.

However, the investigator faced some difficulties in carrying out the procedure. Actual data collection began on 20.1.89 and ended on 28.9.89. A long period of more than eight months was not fully devoted to it because the major part of the period was not available for data collection. The reason was busy schedules of the schools and colleges for preparation of the examinations and conducting them.

After selecting the institution on the basis of the geographical zones and socio-economic status of the pupils, it was necessary to contact the authorities, procure permission, meet the person at the supervisory level, decide upon some suitable time (to them). After this, actual data collection took one more day. In the whole bargain minimum 2-3 to maximum 8-10 days were spent. In the schools and junior colleges. The
procedure was like this. But there was a guarantee of students to come in required number. The difficulties faced at the undergraduate and post graduate level was little different in nature. The response of the authorities like principal or vice-principal or heads of departments was no doubt more cooperative and that of understanding the researcher's problems. But in the complicated and busy schedule of these institutions it was rather difficult and unreliable to get required number of students of particular community at a fixed time. So the investigator had to depend upon the students themselves to turn towards her and come forward for help. It was difficult to catch hold of required students at these levels as it was possible at school level. So the investigator had to visit various degree colleges and post graduate departments several times. Each institution and department called for at least 2 or maximum 4 visits. It was not an easy task to visit several places several time in a city as big as Bombay.

4.10 **Organisation & Processing of the data.**

After collecting the data of 500 students on 5 instruments divided over sex, educational level, socio-economic status and assigned sex category, it became
unwieldy. In order to maintain accuracy the whole data was checked by somebody. Each test was marked according to educational level & sex.

The next step was to take help from computer system. SPSS computer package was used on computer PC/AT 286 using Lotus 1-2-3. The floppies containing this formatted data were fed into the computer PC/AT 286 located at TISS having SPSS package and cross-compilers, and was then processed on this computer. A computer program was written for processing the data on SPSS. This program contained information set for descriptive statistics and required inferential statistics.

4.10.1 Descriptive Statistics.

Basic statistics gave statistical data like mean, median, mode, range, SD, variance SEM, minimum score, maximum score, skewness, standard error of skewness, kurtosis and standard error of kurtosis. The basic statistical data are essential for getting a clearer picture of the distribution of each variable in the sample. Statistic like skewness and kurtosis is essential for ascertaining normality. The measure of central tendency and variability are intergroup comparisons, through the use of t and f
tests. These measures are also useful for the graphical representation of the data. Hence as a first step of data analysis basic statistical data for each of the variable for each of the subgroup was obtained.

4.10.2 Chi-square contingency test.
It is a simple test of significance used to explore any association between independent and dependent variables.

The author of the present study decided to use chi-square of independence test so that the fact of association between the percentage of assigned sex categories and sex can be initially determined.

4.10.3 Graphic Methods.
Data showing the changes attributable to growth, practice, learning and fatigue may often be most clearly presented by graphical methods.

The bar diagram is often used in psychology to compare the relative amounts of some trait possessed by two or more groups. This method is used in this study to show the comparative amounts of various dependent variables across levels of independent variables.

The pie diagram is another graphic method which is useful when one wishes to picture proportions of the
total in a striking way. For this study, it is used to show proportions of 3 ses in a sample.

4.10.4 Anova : Analysis of variance

Whenever multiple means are to be analysed this test was used. The author of the present study decided to use this test so that the fact of significant difference between the means is initially determined and then the t testing between each pair of means can be carried out.

4.10.5 t-test.

The present study has used this test extensively. The various means of dependent variables on the independent variable sex have been analysed with t testing. Further, t testing was done to investigate each pair of a set of multiple means where Anova was proved significant.
**TABLE-4.1**

List of abbreviations used in the study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV</td>
<td>Dependent Variables</td>
</tr>
<tr>
<td>Mty</td>
<td>Masculinity</td>
</tr>
<tr>
<td>Fty</td>
<td>Femininity</td>
</tr>
<tr>
<td>Andty</td>
<td>Androgeneity</td>
</tr>
<tr>
<td>SRD</td>
<td>Sex Role Development</td>
</tr>
<tr>
<td>Self Per</td>
<td>Self perception</td>
</tr>
<tr>
<td>SRO</td>
<td>Sex Role Orientation</td>
</tr>
<tr>
<td>V Mas/Fem</td>
<td>Value Masculinity-Femininity</td>
</tr>
<tr>
<td>Pol. Ideno</td>
<td>Political ideology</td>
</tr>
<tr>
<td>Mech.</td>
<td>Mechanical</td>
</tr>
<tr>
<td>Medi.</td>
<td>Medical</td>
</tr>
<tr>
<td>Compu</td>
<td>Computational</td>
</tr>
<tr>
<td>Sc.fic.</td>
<td>Scientific</td>
</tr>
<tr>
<td>Persu.</td>
<td>Persuasive</td>
</tr>
<tr>
<td>Lit</td>
<td>Literary</td>
</tr>
<tr>
<td>So. ser</td>
<td>Social Service</td>
</tr>
<tr>
<td>Art</td>
<td>Artistic</td>
</tr>
<tr>
<td>Exe</td>
<td>Executive</td>
</tr>
<tr>
<td>Busi</td>
<td>Business</td>
</tr>
<tr>
<td>Type Mne</td>
<td>Type Masculine</td>
</tr>
<tr>
<td>Type Fne</td>
<td>Type Feminine</td>
</tr>
<tr>
<td>Val Mne</td>
<td>Value Masculine</td>
</tr>
<tr>
<td>Val Fne</td>
<td>Value Feminine</td>
</tr>
</tbody>
</table>

4.52
<table>
<thead>
<tr>
<th>Ind V</th>
<th>-</th>
<th>Independent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>-</td>
<td>Males</td>
</tr>
<tr>
<td>F</td>
<td>-</td>
<td>Females</td>
</tr>
<tr>
<td>Assign Sex Cats or sex cats</td>
<td>-</td>
<td>Assigned Sex categories</td>
</tr>
<tr>
<td>Andro</td>
<td>-</td>
<td>Androgynous</td>
</tr>
<tr>
<td>ST</td>
<td>-</td>
<td>Sex Type</td>
</tr>
<tr>
<td>CST</td>
<td>-</td>
<td>Cross Sex Type</td>
</tr>
<tr>
<td>UD or Undiff</td>
<td>-</td>
<td>Undifferentiated</td>
</tr>
<tr>
<td>Low Class</td>
<td>-</td>
<td>Lower SES</td>
</tr>
<tr>
<td>Mid Class</td>
<td>-</td>
<td>Middle SES</td>
</tr>
<tr>
<td>High Class</td>
<td>-</td>
<td>Higher SES</td>
</tr>
<tr>
<td>Level</td>
<td>-</td>
<td>Educational level</td>
</tr>
</tbody>
</table>

Sample.
|
| TS | - | Total sample |
| TMS | - | Total Males |
| TFS | - | Total Females |
| H.S. | - | High School |
| J.C. | - | Junior College |
| U.G. | - | Under Graduate |
| P.G. | - | Post Graduate |
| Pri Level | - | Primary Level |
| B.U. | - | Bombay University |
| Dept. | - | Department |
Table 4.2.

LEVELWISE, ZONEWISE INSTITUTIONS AND DATES OF TESTING

<table>
<thead>
<tr>
<th>Table 4.2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>West Zone</th>
<th>North Zone</th>
<th>South Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shailendra, D.S. High School</td>
<td>Chikitsak S; Dahisar Sion</td>
<td>Girgaon</td>
</tr>
<tr>
<td>17.6.89</td>
<td>10.7.89</td>
<td>3.2.89</td>
</tr>
<tr>
<td>2. B P M Udayachal</td>
<td>Balmohan, Khar Vikhorli</td>
<td>Shivaji Park</td>
</tr>
<tr>
<td>4.7.89</td>
<td>21.7.89</td>
<td>1.8.89</td>
</tr>
<tr>
<td>5.7.89</td>
<td>21.8.89</td>
<td>3.9.89</td>
</tr>
<tr>
<td>4. Parle Tilak, Parle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.7.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: High School Level samples consisted of equal number of males and females from each institution.
### Table 4.2.2

#### Junior College Level

<table>
<thead>
<tr>
<th>West Zone</th>
<th>North Zone</th>
<th>South Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dahanukar college of comm.</td>
<td>SIES, Sion</td>
<td>Ruparel</td>
</tr>
<tr>
<td>Vile Parle E</td>
<td></td>
<td>Matunga</td>
</tr>
<tr>
<td>22.7.89</td>
<td>14.7.89</td>
<td>5.8.89</td>
</tr>
<tr>
<td>Patkar, Goregaon</td>
<td>Kelkar, Mulund</td>
<td>Wilson, Chowpatty</td>
</tr>
<tr>
<td>26.8.89</td>
<td>22.8.89</td>
<td>11.8.89</td>
</tr>
<tr>
<td>Ruia, Matunga</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.8.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.55
<table>
<thead>
<tr>
<th></th>
<th>West Zone</th>
<th>North Zone</th>
<th>South Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dahanukar, Ruia, Ruparel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Com. College</td>
<td>Vile Parle E</td>
<td>Matunga</td>
<td>Matunga</td>
</tr>
<tr>
<td></td>
<td>18.8.89</td>
<td>22.2.89</td>
<td>4.8.89</td>
</tr>
<tr>
<td>Palkar, Kelkar, Bhan’s, Chowpatty</td>
<td>Goregaon</td>
<td>Mulund</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28.8.89</td>
<td>4.3.89</td>
<td>17.6.89</td>
</tr>
<tr>
<td>SIES, Sion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14.7.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.58
<table>
<thead>
<tr>
<th>Name of dept. or institution</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept. of Marathi of BU</td>
<td>12.3.89</td>
</tr>
<tr>
<td>Dept. of History of BU</td>
<td>17.3.89</td>
</tr>
<tr>
<td>Dept. of Economics of BU</td>
<td>17.3.89</td>
</tr>
<tr>
<td>I.I.T., Powai</td>
<td>25.6.89</td>
</tr>
<tr>
<td>Dept. of Geography of BU</td>
<td>7.9.89</td>
</tr>
<tr>
<td>Dept. of Statistics of BU</td>
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<tr>
<td>Dept. of Marathi of BU</td>
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</tr>
<tr>
<td>Dept. of Chemistry of BU</td>
<td>6.9.89</td>
</tr>
<tr>
<td>S.T. College of Education,</td>
<td>23.9.89</td>
</tr>
<tr>
<td>Govt. of Maharashtra</td>
<td></td>
</tr>
<tr>
<td>Dept. of Physics of BU</td>
<td>28.9.89</td>
</tr>
</tbody>
</table>
Table 4.3

Subjects: Distribution of SES, educational level & sex.

<table>
<thead>
<tr>
<th>SES</th>
<th>TS</th>
<th>Educational Level</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H.S.</td>
<td>J.C</td>
</tr>
<tr>
<td>Lower</td>
<td>191</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Middle</td>
<td>162</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Higher</td>
<td>47</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>400</td>
<td>50</td>
<td>50</td>
</tr>
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</table>

4.58