Chapter-3

Research Methods and Procedures
RESEARCH METHODS AND PROCEDURES

In the present chapter the sample, the design, methods and procedures of the study have been discussed with regard to the following heads-

a. The Sample

b. Design and variables involved

c. The tools used

d. The collection of data

e. The statistical technique used

a. The Sample

In the present study 300 Intermediate (age 16-18 years) and 300 Graduate (age 21-23 years) students of Bundelkhand area (Uttar Pradesh) were included in the sample. The 300 male and 300 female students were selected through stratified random sampling technique. The 300 students of high socio-economic status and 300 students of low socio-economic status were selected in the sample. A schematic breakup of the sample is shown below-
b. **Design and Variables Involved**

The present study is concerned with the effect of sex, socio-economic status, types of education and personal values on social change. An ex-post-facto research design was considered suitable for the present study. The independent variables are studied in respect of their possible relations and effect on dependent variables.

There are two types of variables in the present study-

(i) **Independent Variables**-

   Sex (Male & Female)

   Socio-economic status (high & low)

   Types of Education (Intermediate & Graduate)

   Personal Values

(ii) **Dependent Variable**-

   Social Change
C) The Tools Used

The following tools were used for the data collection-

i) Modernization Scale

By Dr. Taresh Bhatia

ii) The Value Test

By Dr. Taresh Bhatia and Dr. S.C. Sharma

iii) Socio-Economic Status Scale

By Dr. Rajeev Bharadwaj

A detailed description of the tools used in the present study has been given below-

i) Modernization Scale-

The systems of social structure and tradition cover the entire gamut of the Indian Social phenomena and its realities. Modernization in these systems begins either from the emergent and endogenous sources, or through contact with forces outside the systems. The western impact and cultural modernization which deals with exogenous processes of cultural change in India, mainly through the impact of the west. This contact led to the beginning of modernization as also to the historical phase for a large-scale confrontation between the heteronomic traditions of the east and the west in India. The earlier contact between Hinduism and Islam did lead to cultural challenges and responses but the confrontation was really between two traditional
world-views. In course of time the growth of universalistic legal norms, educational modernization, expansion of communication networks, technologies, urban centres and emergence of the modern political institutions helped in the institutionalization of a parallel new great tradition.

The word ‘modern’ refers to anything which has more or less, recently replaced something which in the past was the accepted way of doing things (Inkeles 1974). It means latest and the term modernise refers to rendering something old fashioned uptodate. Modernity means any idea, person or thing which is rational, scientific, dynamic and free from the constraints of creed, dogma, authority and superstition. The end quality of being modern is denoted by modernity, where as the process of becoming modern is denoted by modernization. The concept of modernization as the process involving qualitative changes both in the society and the individual. Sharma (1979) had identified a set of seven value orientations as secular, scientific, universalistic, egalitarian, achievement, independence and civic orientation. Raghuvanshi (1984) has studied some characteristics of modern man from attitudinal perpective as change proneness, achievement orientation, efficacy, democratic orientation, empathy and from behavioural perspective as social participation, adoption behaviour, knowledgeability and opinionatedness.

**Development of the Scale.**

The modernization scale’ has been used for measuring the attitude of different areas of an individual. The present scale measures following six areas
a) Women Status
b) Marriage & Family
c) Religion
d) Education
e) Family Planning
f) Social Mobility

At the first stage 15 to 20 items under each area were selected. In this way an initial pool of 110 items were ready for the scale. The material of these items were collected by books, tests and other relevant literature. The scale was administered to the subjects of 300 students both male and female for the purpose of item analysis. The age range of the students was 16 to 22 years. The response sheets were placed in an ascending order. The top 27% and lower 27% were selected for item analysis. The ‘t’ Test was applied to find out the discriminative value of each item. All the items were then arranged in descending order of their ‘t’ values. The first 60 items with the largest discriminative values were selected whereas others were rejected. Thus the final scale of 60 items, out of which each area has ten items is named as modernization scale.

Reliability

The coefficient of reliability was determined by test-retest method. The scale was administered twice with a time interval of 30 days to a sample of 250 subjects. The test-retest reliability coefficient for each area of the scale was found out as follows
<table>
<thead>
<tr>
<th>Areas</th>
<th>Test-retest reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Women Status</td>
<td>0.83</td>
</tr>
<tr>
<td>b) Marriage &amp; Family</td>
<td>0.86</td>
</tr>
<tr>
<td>c) Religion</td>
<td>0.79</td>
</tr>
<tr>
<td>d) Education</td>
<td>0.81</td>
</tr>
<tr>
<td>e) Family Planning</td>
<td>0.88</td>
</tr>
<tr>
<td>f) Social Mobility</td>
<td>0.85</td>
</tr>
<tr>
<td>Total</td>
<td>0.82</td>
</tr>
</tbody>
</table>

**Validity**

The validity of the scale was found out by correlating the scale with some external criterion that the Comprehensive Modernization Inventory (CMI) by Dr. S.P. Ahluwalia & Dr. A.K. Kalia. Both the tests were administered to sample of 150 subjects and correlation was found out between different areas which were common in both the tests, indicated positive and significant correlation. A coefficient of correlation has been obtained 0.78 on the total scores, which is high and significant.

**Administration**

It is a self administrating scale. There is no time limit for answering it. However most of the groups should finish it in about 20 minutes. It should be emphasized that there is no right or wrong answers to the test statements.

**Scoring Key**

It is a five point rating scale, the scoring of which has been given by assigning five to one scores respectively for five alternatives
of the positive items, rated strongly agree to strongly disagree. For the negative items (Showed with stars) the scores assigned to each of the alternatives have been reversed by assigning one to five.

The following Table shows item distribution in ten various areas:

<table>
<thead>
<tr>
<th>Areas</th>
<th>Total Items</th>
<th>Positive Items</th>
<th>Negative Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Women Status</td>
<td>10</td>
<td>1,7,37,43,55</td>
<td>13,19,25,31,49</td>
</tr>
<tr>
<td>b) Marriage &amp; Family</td>
<td>10</td>
<td>2,8,14,20,26</td>
<td>38,56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32,44,50</td>
<td></td>
</tr>
<tr>
<td>c) Religion</td>
<td>10</td>
<td>3,9,21,39,45,57</td>
<td>15,27,33,51</td>
</tr>
<tr>
<td>d) Education</td>
<td>10</td>
<td>4,10,16,22,28</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34,40,46,52,58</td>
<td></td>
</tr>
<tr>
<td>e) Family Planning</td>
<td>10</td>
<td>5,17,23,29,35,41</td>
<td>11,47</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53,59</td>
<td></td>
</tr>
<tr>
<td>f) Social Mobility</td>
<td>10</td>
<td>6,12,18,24,30,36</td>
<td>48,60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>42,54</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>45</td>
<td>15</td>
</tr>
</tbody>
</table>
**Norms**

Qualitative description of the score obtained are as follows-

<table>
<thead>
<tr>
<th>Different Area</th>
<th>Gender</th>
<th>Modernization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very High</td>
</tr>
<tr>
<td>(a) Women Status</td>
<td>Male</td>
<td>35 &amp; above</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>43 &amp; above</td>
</tr>
<tr>
<td>(b) Marriage &amp; Family</td>
<td>Male</td>
<td>41 &amp; above</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>39 &amp; above</td>
</tr>
<tr>
<td>(c) Religion</td>
<td>Male</td>
<td>40 &amp; above</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>38 &amp; above</td>
</tr>
<tr>
<td>(d) Education</td>
<td>Male</td>
<td>43 &amp; above</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>41 &amp; above</td>
</tr>
<tr>
<td>(e) Family Planning</td>
<td>Male</td>
<td>44 &amp; above</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>41 &amp; above</td>
</tr>
<tr>
<td>(f) Social Mobility</td>
<td>Male</td>
<td>39 &amp; above</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>37 &amp; above</td>
</tr>
<tr>
<td>Total</td>
<td>Male</td>
<td>226 &amp; above</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>219 &amp; above</td>
</tr>
</tbody>
</table>

**ii) The Value Test**

Values are normative standards by which human being are influenced in their choice among the alternative courses of action which they perceive (Flink). Values are precipitate of behaviour. They are what is attractive to a person, the essence of what he seeks in an object, a person or even himself (Martin). The value operate as criteria
for making judgements between alternative courses of action and they
directly influence the quality of the person’s behaviour and decisions.
As a rule, the person adopts those values which help him to achieve
the ends he desires and which are, at the same time, sanctioned by the
group with which he is identified. His values are thus influenced by
and are a reflection of his personality (Hurlock).

Each individual develops values which seem important to him and
which guide his life. Thus a value is an enduring belief that a specific
mode of conduct or end-state of existence is personally or socially
preferable to an opposite or converse mode of conduct or end-state of
existence (Rokeach 1973).

The Measurement of values :

E. Spranger’s book ‘Types of Men’ (1928) divided into six types
of men. These are theoretical (truth), Economic (usefulness), Aesthetic
(harmony), Social (altruistic), Political and Religious. In 1931, G.W.
Allport and P.E. Vernon constructed a scale for measurement of values
as described by a Spranger. Allport, Vernon and Lindzey (1951)
developed a revised standardized scale to measure the six values.
Rokeach (1967) in his revised measure of values uses two lists of
words or short phrases. List A contains eighteen terminal and List B
eighteen instrumental values.
Development of Test:

The Value Test has been used for measuring the different values of an individual. The present test measures ten important values. To make a scientific selection of the values, 15 relevant and meaningful values were taken. These fifteen values were given to five experts in the field of Psychology for approval. The total number of values over which the experts were unanimous were ten and they were retained for the final form of the test. These values were-

a. Theoretical Value

The theoretical man is characterised by a dominant interest in discovery of truth, empirical, critical, rational and takes a cognitive attitude. He is necessarily an intellectualist, frequently a scientist or philosopher.

b. Political Value

The political man is primarily interested in personal influence and renown. He betrays himself as all knowing man as machtmensch.

c. Religious Value

The religious values can be defined in terms of faith in God and attempt to understand him. Religious values play an important role in personal and social adjustments. Personally, they contribute to a feeling of stability and security by giving the individual a permanent
anchorage point. Socially, if the person behaves in such a way as to show that he accepts the group's religious values. Whatever they may be, his social image will be enhanced and the group's judgement of him will be favorable (Hurlock.).

**d. Social Value**

The social value man is characterised by love of people, service to people, consisting mainly of altruism or philanthropic, sympathetic, kind and unselfish.

**e. Aesthetic Value**

The aesthetic value man is primarily interested in enjoying fine arts, music, dance, poetry, literature and decoration of the home.

**f. Economic Value**

The dominant interest of economic value man is the consideration of money and material gain. This type of person is thoroughly practical and emphasizing the utility. Values relating to money change with experience, in the use of money and with realization of the role of money in personal and social adjustments (Hurlock).

**g. Democratic Value**

Democratic value is characterized by appreciation of social justice and equal social, religious rights to all persons. This type of
person does not like partiality and discrimination on the bases of caste, religion, language etc.

h. *Hedonistic Value*

This value stands for the desirability of loving pleasure and avoiding pain. This type of person is emphasizing the present than the future.

i. *Power Value*

This value stands for the desirability of ruling over others and leading over others.

j. *Health Value*

A man with high health value feels that at all ages and among members of both sexes, good physical health is a personality asset. Thus this type of person emphasized the importance of good physical health.

*Item-Analysis*

The test consists of a number of questions, based upon a variety of criterion situation to which four alternative answeres are provided. The subject had to express his comparative preferences numerically by the side of each alternative answers. It was decided to write 40 items. These items were given to five experts for a rating. The items with
100% approval were retained and rest were dropped. Thus after the initial try-out the 30 items were left.

The test was administered to the subjects of the sample of 400 students (Male and Female) for the purpose of item-analysis. Item-analysis was done with the help of the method between two extreme upper and lower groups. Discriminative values were computed for item selection and applying ‘t’ test for each item. All the items were then arranged in descending order of their ‘t’ values. Out of 30 items, the first 20 items were selected for the final form of the test. Thus the test consists of 20 items.

**Reliability**

The coefficient of reliability was determined by the following two methods-

i) The test-retest reliability was determined by administering the test after four weeks.

ii) The split-half reliability was ascertained by adopting oddeven procedure.

The following table-1 shows the coefficient reliability determined by the two methods-
### Validity

The validity of the test was found out by correlating the scores of the present test with the external criterion as the scores of ‘Personal Values Questionnaires’ (PVQ) by Sherry and Verma, on 150 subjects, correlation was found 0.85.

### Administration :

It is a self administrating test. There is no time limit for answering it. However most of groups should finish it in about 10
minutes. It should be emphasized that there is no right or wrong answers to the statements. They are constructed to have differences in individual’s reaction to various situations.

*Scoring :*

The test scores should be recorded beside the corresponding bracket and the total for each value should be summed at the bottom of each page. The total of each value column should be noted down in the back page. These totals show the scores of the respondent. The ten values’ total scores should be plotted as bar diagram on the back page of the test.

### iii) Socio-Economic Status Scale

*Introduction*

The present Socio-economic Status Scale has been constructed with a view to seek clarity of distinct aspect of social and Economic Statuses of an individual separately and integrally. The contention of Hurlock (1964)- 'The economic status of a family frequently determines what the family social status will be',- does not appear to be appropriate and quite vocal in the Indian socio-cultural setting where a Pandit (Katha-Vachak) or a Primary school Teacher has a very high social status but the may not be financially well placed, whereas we may have a merchant or a miser money-laner having a very sound
economic position but possessing no rank in the society. Keeping this
dilema of the Indian socio-cultural setting in view, it has been
considered appropriate to determine social and economic status
separately in the two areas of social and economic aspects, and then
the two scores of different areas switched to one continuum or in
standard scores, which can give the Socio-economic Status of an
individual. With this object the test envisages to determine nine types
of statuses namely social status (ascribed), social status (achieved),
social status (as a whole), economic status (ascribed), economic status
(achieved), economic status (as a whole), socio-economic status
(ascribed), socio-economic status (achieved) and socio-economic
status (as a whole).

Again the present scale will hold good equally in both urban and
rural areas.

Concept

Status

By the term ‘Status’, we mean the recognition given to an
individual by his group relations (Kelly, 1951). As a rule of
conservation (Cooley, 1956) in terms of the sense of belonging (Park
and Burgess, 1921) it is the result of the ranking of a role by the
group (Ogburn and Nimcoff, 1960) that determines for its possessions
of a degree of respect, prestige and influence (Maclver and Page, 1937). They are, thus, the ancient powers and privileges of the family bestowing prestige, authority and power (Mussen, Conger and Kagan, 1963).

Societies have thus developed two types of distinct status- The ascribed and the achieved (Linton, 1936; Cole and Montgomery, 1959; Ogburn and Nimcoff, 1960).

The 'ascribed status' is the recognition which a society gives to a person because of this position (Cole et al, 1959). It is assigned to individuals without any reference to their innate differences or abilities (Linton, R., 1936). Thus it can be predicated and ascertained since birth.

The 'achieved statuses' are as minimum, those requiring special qualities although they are not necessarily limited to those. They are not assigned to an individual since birth but are left open to be filled through competitions (Linton, R., 1936; Ogburn and Nimcoff, 1960) and individual efforts (Linton, 1936; Cole et al, 1959).

**Social Status**

A social person is one who conforms to the three criteria of social development. He should behave in approved manner, play the role which society prescribes for him and possess favourable attitudes
towards people and social activities (Hurlock, 1964).

'Social status', therefore, is an indication of one's position of respect, prestige and influence in the social structure (Maclver and Page, 1937; Cole and Montgomery, 1959; Rogers, 1962) apart from his personal attributes (Maclver and Page, 1937) which may either inhibit or enhance an individual's access to sources of information and his willingness to deviate from group norms (Rogers, 1962) and may even vary with the groups (Cole and Montgomery, 1959).

**Economic Status**

The word 'Economic' is used generally for the motives involving earning a livelihood, the accumulation of wealth and the like (Drever, 1964). The economic endeavour entails 'cherishing of things because of their material value (Spranger, 1928) and the pursuer, by virtue of this activity, carves for himself a place in society recognised as 'Economic Status'. Economic Status, thus, stratifies modern population according to the amount and source of income which is usually derived from a set of occupational activities, the ownership of property or both.

**Socio-economic Status**

The 'Socio-economic Status' is obviously a blending of the two statuses as enumerated earlier. Though none of the two can exist
without each other yet they are distinctively different. 'Socio-economic Status' appear to be the resultant of the position of an individual in a society by virtue of a complex fusion of both of them, which often do not run parallel to each other in their own areas. This intermingling takes place in an undefined and curious manner eventually to present an indicator to 'Socio-economic Status'.

'Socio-economic Status' would, therefore, be a ranking of an individual by the society he lives in, in terms of his material belongings and cultural possession along with the degree of respect, power and influence he wields.

The blended complex of two statuses in terms of 'Socio-economic Status' as such remains a highly important sociological concept and is usually measured in terms of occupation of father (Warner and Lunt, 1949; Dineen and Garry, 1956; Hollingshed and Redlich, 1958; Sargent and Williamson, 1958; Tyler, 1965; English and English, 1959; Kuppuswami, 1962; Pareek and Trivedi, 1964; Shirpurkar, 1967; Aaron, Marihal and Matlesha, 1969; Ruch, 1970; Kulshreshtha, 1972) education of father (Freeman Holginger and Mitchell, 1928; Warners et al, 1949, Hollingshed and Redich, 1958; Kuppuswami, 1962; Preek and Trivedi, 1964; Shirpurkar, 1967; Aaron et al. 1969.; Ruch 1970) house (Freeman et al. 1967; Aaron et al. 1969; Kulshreshta, 1972) income (Warners et al. 1949; Sargent et al, 1958;


**Variable Sensitivity**

'Social' and 'Economic' status show intimate relationship to
other variables, Abnormality in the family was found to be an important correlate of poor performance in social status (Toby, 1957; Fraser, 1959; Davis, 1949, 60). Economic Status promote leadership (Stogdill, 1948; Lewis, 1954; Chowkidar, 1964; Singh and Arya, 1966; Roy, 1967; Sharma, 1975) originality creativity in less intelligent adolescents when they possess high aggression (Bharadwaj, 1983) scientific interest in general (Goyal, 1984) executive interest in boys when they also possess high level of creative production (Goyal, 1984) level of aspiration in children (Kanta, 1962; Devkaruna, 1962) and religious affiliation (Allinsmith and Allinsmith, 1943; Lipset, 1963; Grespy, 1965). Economic status does not affect any competency related to emotions (Varshney, 1997). It demotes originality creativity in less intelligent adolescents when they possess high level of fixation mode of frustration (Bharadwaj and Sharma, 1986). Adolescents of high economic status have greater conflict than adolescents of low economic status (Asthana, 1987).

Socio-economic status influences values (Sharma, 1979) difference in home management and table manner, in husband wife relationship, role of parents, children and relatives, monthly expenses, child training and attitudes towards family life (Benedict, 1949; Mass, 1951; McGuire, 1954) performance of children in examination (Singh, 1962) level of alienation (Neal and Groat, 1974) social participation
and motivation for improvement (Pareek and Trivedi, 1964) ego strength (Bharadwaj, 1995) verbal fluency (Pradhan, Akhani and Janbandhu, 1997) and value conflicts (Kalpna, 2000). The children of high socio-economic status talk sooner, talk better (Hurlock, 1964) and more aggressive and less regressive (Helode and Ghosh, 1995) than those of adolescents of low socio-economic status. At every age, the articulation of children of the upper socio-evonomic group is superior to that of children of lower groups (Landreth, 1958; Bernstein, 1960). Socio-economic status favour intelligence (Fryer, 1922; Goodenough, 1928; Richards, 1943; Laired, 1957; Shanthamani, 1970; Ramalingaswami, 1975) verbal fluency (Pradhan, Akhani and Janbandhu, 1997) curvilinearly correlated and mid-group remains favourable in bringing about a recognised creative scientist or an engineer (Roe, 1951; Knapp and Goodrich, 1952; Repucci, 1962). It demotes interests in agricultural pursuits (Chauhan, 1972; Moolchandani, 1977; Bharadwaj, 1978) executive and literary pursuits (Bharadwaj, 1978) social, commercial and household pursuits (Moolchandani, 1977) but promotes artistic and executive pursuits (Bharadwaj, 1978) scientific interests (Bharadwaj, 1989). Socio-economic status is a curvilineary correlate of scientific interest with oppression on mid (Bharadwaj, 1989). In comparison to the adolescents of middle socio-economic status, the high socio-economic group have more ability to
function with emotions in Christians having moderate anxiety (Jain, 1993). In comparison to high socio-economic group adolescents, the middle socio-economic group have greater attitude towards social change nationalism and untouchability in high caste urban adolescents (Mittal, 1994).

**Description of the scale**

The present scale of ‘Socio-economic Status’ has been developed for literate people. It can be administered on illiterate people also, but only by personal interviews. At preliminary state fifteen areas of ‘Socio-economic Status’ were selected with the careful study of the relevant literature and from some popular tests in the field. The list of fifteen areas were submitted to twenty judges to know the most important areas which can measure the ‘Socio-economic Status’ of the individual in society. Opinion of the twenty judges pointed only seven areas to provide the desired information. Items for each areas then selected and were again submitted to fifty experts to determine the hierarchy or ranking with reference to their importance of the seven selected areas and items related to different areas along with alternatives to each item, if any. It gives us three-rank-values—j.e., area rank value, item rank value and alternative rank value. With these three rank-values, we calculated the proportion rank scale value and then determined the weighted score for each item. Many items and their
alternatives items, which were not approved by the experts or found a very little scale value were than discarded.

The first form of the scale was then developed with the help of heirarchies as determined by the experts. This first form of the scale was administered on a sample of twenty students, which indicated the different types of difficulties in the process of administration, scoring, etc. By removing and minimising these difficulties in the different aspects of the scale, the final form emerged for the purpose of scaling. This form of the scale can be understood easily with the help of the Table given below:

Table 1

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Area</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Social</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Family</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Education</td>
<td>7</td>
</tr>
<tr>
<td>4.</td>
<td>Profession</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>A. Doctors</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>B. College Principals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>C. Administrators</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>D Forces (4)</td>
<td>2</td>
</tr>
<tr>
<td>Group</td>
<td>Value</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>E. Officers</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>F. Lawyers</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>G. Teachers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>H. Writers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I. Business Personnels</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>J. Artists</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>K. Engineers</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>L. Leaders</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>M. Managers</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>N. Miscellaneous</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5. Caste*</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>6. Total Assets</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7. Monthly Income</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

* Caste is one of the areas of 'Social status' and is meant only for ascribed status. In achieved social status caste is not an area.

The subjects or testees are asked to give responses for father, mother and himself (case) separately in the scale.
Reliability and Validity

Reliability

The reliability of the test of the revised scale has been calculated by test and retest method. The scale was administered on a sample of 200 students and after 21 days it was re-administered on the same sample. The correlation between two scores was calculated by Spearman-Brown formula. The following reliability coefficient correlations were found in seven areas and of the scale as a whole.

Table

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Area</th>
<th>Coefficient of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Original Scale</td>
</tr>
<tr>
<td>1.</td>
<td>Family</td>
<td>0.72</td>
</tr>
<tr>
<td>2.</td>
<td>Social</td>
<td>0.68</td>
</tr>
<tr>
<td>3.</td>
<td>Education</td>
<td>0.82</td>
</tr>
<tr>
<td>4.</td>
<td>Profession</td>
<td>0.70</td>
</tr>
<tr>
<td>5.</td>
<td>Caste</td>
<td>0.92</td>
</tr>
<tr>
<td>6.</td>
<td>Total Assets</td>
<td>0.67</td>
</tr>
<tr>
<td>7.</td>
<td>Monthly Income</td>
<td>0.73</td>
</tr>
<tr>
<td>8.</td>
<td>Scale (as a whole)</td>
<td>0.76</td>
</tr>
</tbody>
</table>
Validity

The content validity of the revised scale, since areas and then item are solely based on research proven items is high and promising.

Administration

It is self-administering scale. It gives better results with individual testing rather than with group testing. In group situation the tester also can get quite appropriate results only after establishing good rapport with the testees. The tester should discuss here the desired purpose; and should explain the description and instructions of the test. The instructions should be read loudly by the tester, while subjects resad them silently along with him. The test can be started only after clear understanding has been established. There is no time limit for the testees to record the responses in this scale. Ordinarily an individual takes about 10 to 15 minutes to record his responses.

Scoring

Scoring of the test is very easy and of a quantitative type. Scoring key provides the weighted score which will serve to provide the score if any ticked mark (✔) is present in the horizontal place for father, mother and case (i.e. the testee). The scoring key has to be placed vertically between the two assigned points on the test. The separate scores for each area are then to be totalled vertically. These
totals of the scores for each separate area are there after to be put in big boxes provided at the vertical end of each area for father, mother and case.

The same process of scoring has to be followed in respect of each page of the scale. It has to be borne in mind very clearly that there are separate scoring keys for each page of the test and the keys have been numbered accordingly.

When scoring of each page has been completed, The areawise total score of father, mother and case is to be transferred on the last page of the test in Table 1.

\textbf{d) The Collection of Data}

The subjects of the present study were selected from the prescribed population. The principals of these institution were approached one by one and the objectives of the present study were explained. All the institutions provided the facilities for collection of data. The selected students were administered three tests and requested to answer the questions sincerely and truthfully. They were assured that the responses would be kept confidential.

\textbf{e) The Statistical Technique Used}

The first purpose of the present study was to compare the social change of high and low socio-economic status, male and female
students, Intermediate and Graduate Students, different high and low personal values. Mean and standard deviation of each group were calculated. The comparison between different groups were made on the basis of the Critical Ratio with 0.05 and 0.01 levels of confidence considered significant. Hypothesis from No.1 to 4 were tested by applying Critical Ratio.

Another purpose of the present study was to find out the effect of gender, personal values, socio-economic status and types of education on social change, for this purpose analysis of variance was calculated.