Chapter-3

Research Methodology

Section-1

3.1 Introduction to Social Research

Humans have an extraordinary capacity to exercise rational judgment and probe the realities of the world around us. Inherent in humans is the urge to find out the truth and to make a sense out of the things going around us. Social research is that domain of human inquisitiveness which primarily deals with the structures and processes of the social world, in both their enduring and changing dimensions. We can define research as a systematic and logical pursuit made by human beings to find out knowledge from any “phenomenon or relationship”.

Research in Natural Sciences vs. Social Sciences

In natural sciences there is a clear cut separation of the observer and observed reality which is why the observer does not interfere in what is going to be observed. The objectivity of the natural reality can be easily observed. However picture is altogether different when we enter into the domain of social sciences. There is hardly any separation between the reality under observation and the observer. Being a human being, the observer’s biases and emotions have a strong tendency to play a role which interferes in the observed Reality.
Methodology, Methods and Technique

Methodology is a systematic process to probe the research problem. It is a comprehensive step by step process which range from why a research problem has been undertaken to why specific techniques have been used.

Logic of Inquiry in Social Research

In very simple terms it relates to derive a conclusion by reason in such a way that conclusion necessarily follows from the premises. His logic is based on a major premise; a minor premise and conclusion.

Issues of Ethics

There are vital ethical issues which confront you while you study social systems. This is a big challenge for social science researchers to continue to remain unbiased “What criteria we should choose to construct the Universal Reference”. There is a persistent question about how to deal with the concepts of right or wrong particularly when the cultural setting is alien to us.

The concepts are basic building blocks of the theory and are connected in a logical sequence. Concepts are described by standardized description called their definition. The concepts are basically abstractions based on observations and evidence. There is a big difference between scientific concepts and social concepts.

Theory building is central to social research Theories are needed to simplify the task of dealing with realities. The societal phenomena are of highly diverse nature with large number of parameters contributing for its evolution. If we want to make a sense out of it and discover any
pattern in it then some observations have to be collected out of different situations so that anything common in different situation or specific pattern can be easily visible. The second task of a theory, apart from explaining the observations is to construct a hypothesis which can be put to test by a theory.

Hypothesis is just a logical statement written on the basis of our subjective understanding of the social phenomena. It may or may not be true. We may also say that it is a kind of deductive statement and is to be proved inductively i.e. based on observations.

### 3.2 Different Approaches of Research

**Basic vs. Applied Research:** The distinction between basic and applied research is largely by the focus of its application. This distinction comes from basic science vs. applied science. Example: Physics and Engineering. Basic research focuses on to determine or establish the basic or fundamental relationships within a discipline without paying attention to any practical applications to the real world. In contrast, applied research is usually conducted to solve a particular and concrete problem.

**Descriptive vs. Analytical Research:** The distinction between descriptive and analytical research is based on the question it asks. Descriptive research attempts to determine, describe, or identify what is, while analytical research attempts to establish why it is that way or how it came to be. The descriptive research uses description, classification, measurement, and comparison to describe.

**Empirical research** is a way to gain knowledge by means of direct and indirect observation or experience. Empirical evidence (the record of one's direct observations or
experiences) can be analyzed quantitatively or qualitatively. Through quantifying the evidence or making sense of it in qualitative form, a researcher can answer empirical questions, which should be clearly defined and answerable with the evidence collected (usually called data).

There are two basic approaches in research namely quantitative and qualitative research approaches. Quantitative research approach, as the name suggests, refers to studies which involve measurable quantities. Such approach can be further categorized in to inferential, experimental or simulative approaches.

An example of inferential research is survey research in samples of the population are taken and analyzed. Based on the data generated by Study we get statistical inferences about population.

Experimental research refers to a kind of research where we exercise a much greater controls the variables. The idea behind such an approach is to manipulate some variable in such a way that their impact over other set of variables can be studied.

Third type of quantitative approach is called simulation approach in which we create an artificial or simulated environment to study the dynamic behaviour of the system. Qualitative research deals with subjective assessment of attitudes, opinions or behaviour.

3.3 An Overview of Research Process

Research process covers a series of steps which range from formulating the research problem to deriving conclusions; the investigator has to design process in a scientific and logical way. Steps are
To formulate the research problem

Preparation of synopsis and working hypothesis

Prepare the Research Design

Determine Sample design

To Plan collection of data

Execution of the Project

Analysis of data and hypothesis testing

Generalization and interpretation

Preparation for the Report

The final stage of any research investigation is the preparation of Report or Thesis. The report should generally carry the sections like preliminary pages like title, acknowledgements, foreword and list of Table/Graphs/Charts followed by main text of report and appendices. The main text of the report is divided into introduction, main body, statement of findings/recommendations, and conclusion.
Section-2

3.4 Research Approach

3.5 Topic

The topic of the study is “A Comparative Study of Adjustment Problems related to Physical, Economical, Emotional, Familial and Social areas of Old Age People residing in Families and Old Age Homes”.

3.5.1 Senior citizens of South Gujarat Districts.

In urban areas problems of seniors are different. These seniors are somewhat educated but they lack technical knowhow of modern techniques. They want to work in offices in senior positions but with computers in each office they feel uneducated to handle affairs of the business. The senior citizen’s sight is usually impaired and hearing loss is common. Sometimes they are not able to listen to beep of computers and to sit down on a chair in particular position and to run computer is difficult and tiring job.

Some urban seniors due to high educations and lifelong experiences are very sober and want to spend their leisure’s times by reading books and writing but advance technology has put most of the new literature and scientific works on internet. This means they have to sit and then read on computer. Computer again is used on priority basis by young working men and students in the house. This way the senior citizens get the last priority to use computers in their homes, for reading a serious books and information on internet. This technology has increased the gap among young generation and senior citizen. Youngsters spend time watching TV when in home and seniors due to impaired eyesight and hearing, go and spend their time lonely in their rooms.
In old time people used to visit friends but now due to long traffic jams and long distances people talk to each others on telephones. We do not have places for senior citizens to get together and chat and as a result they feel being treated as discarded persons. Many of seniors are suffering from major diseases of diabetes, cardiac hypertension, kidney failures and various types of cancers and as there is no insurance available after 65 years they suffer physically and financially.

The biggest problem they face is loneliness. In the urban areas both young husbands and wives, go for a job, children go to schools or colleges and the old age parents are left behind at homes to act as watchman or watch women of their houses.

The Old Age People who live in multi storied apartments, do not know how to operate a lift to go down to the ground floor for help and others do not go out, due to poor vision or difficulty in walking, the only way left with them is to use a telephone to inform other relatives or well wishers but in most cases telephone numbers in the directories are written in very small letters and even are difficult to read by healthy persons. It is quite difficult for old aged, first to remember (due to poor vision) and then to talk on telephone (due to impaired hearing).

In transport there is no priority for elders. They have to stand in a queue and there are no separate queue for Old Age People, even the younger push each other to find place. There are no separate seats for elders and or any priority or concession on fares.

The older people after staying alone in the house wait for the evening for family members to come and talk to them, but television takes away their time and then everyone goes to bed.
In urban areas due to distances it is hard to travel as transport is costly and everyone is busy, as a result the elderly people are forced to stay behind till the younger members of family get them to drive down to their friends and relatives. Poor eyesight does not allow them to read a book or newspaper or watch television, to pass their time.

The old aged women suffer much harder than the old aged men because still in some Families, the old men’s advice is respected and he is called for discussion on important issues while old aged females usually are ignored.

The urban area houses have usually slippery floors and many times aged and sometimes even young people slip and break their bones. Bone fractures are most common in old age as bones become brittle with age and small jerk cause fractures and their recovery takes very long times. Stair cases of Malls and Flats are without proper holding pipes even Restrooms are slippery with modern fittings to add to their problems.

Since in the rural areas, illiteracy rate is 93%. Main profession is Agriculture, which is based on old conventional methods. The modern methods are not known at Farm/Field level this makes agriculture un-economical. It is here that old senior citizens have become unfit and redundant. In the rural areas economy is based on agriculture, which need involves lot of physical strength, and old aged males usually do less physical jobs while the old women in the rural areas carry social discussions and help in arranging marriage. In some cases she also acts as functional baby sitter while young women go for physical activities.

In the rural areas elders are very miserable. They are usually malnourished, and no health facilities exist when they suffer physical complications, they have to depend upon old wife’s
prescriptions or quacks formulae. Since the whole family lives together the old parents in rural areas do not suffer from acute loneliness as in the urban areas and due to lack of transport elders they have to walk which itself is a good exercise.

Traditions teach Young to obey their elders and to respect them as their legal and family heads. They are consulted for serious problems and often they are held responsible to decide on important and serious matters. In these districts there are limited number of parks and entertainment institutions. Visits to hotel on a holiday is biggest and most common enjoyment

Districts of Bharuch, Surat, Navsari and Valsad

<table>
<thead>
<tr>
<th>Districts Population</th>
<th>Sex Ratio</th>
<th>Literacy</th>
<th>Urban %</th>
<th>Rural %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bharuch District</td>
<td>924</td>
<td>85.17</td>
<td>34.07</td>
<td>65.93</td>
</tr>
<tr>
<td>Surat District</td>
<td>788</td>
<td>83.85</td>
<td>79.68</td>
<td>20.32</td>
</tr>
<tr>
<td>Navsari District</td>
<td>961</td>
<td>85.41</td>
<td>30.74</td>
<td>69.26</td>
</tr>
<tr>
<td>Valsad District</td>
<td>926</td>
<td>89.59</td>
<td>37.23</td>
<td>62.77</td>
</tr>
</tbody>
</table>

### 3.6 Objective of the Study

Following are the Objectives of the Study

To study the difference (if any) in the Adjustment between Elders (Male and Female) staying with Family and staying in Old Age Homes

To study the Adjustment of the elders on parameters like Physiological, Emotional, Economical, Familial, and Social for Males and Females individually and collectively for both together i.e. gender independent study.
### 3.7 Type of Study

It is a descriptive study- “A Comparative Study of Adjustment Problems related to Physical, Economical, Emotional, Familial and Social areas of Old Age People residing in Families and Old Age Homes”

Adjustment in old age, responsibilities of the family member’s rights of senior citizens, a case study of elders in south Gujarat, It is unique in its nature; in the study the researcher has grasped the factors responsible for Adjustment in old age.

### 3.8 Research Design

<table>
<thead>
<tr>
<th></th>
<th>A1</th>
<th>A2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B1</td>
<td>B2</td>
</tr>
<tr>
<td>C1</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>C2</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

A1=Staying with Family  
A2=Staying in Old Age Home  
B1=Bharuch District  
B2=Surat District  
B3=Navsari District  
B4=Valsad District  
C1=Male  
C2=Female  
N=160  
n=20
3.9 Variables

3.9.1 Independent Variables:

Gender-Male and Female

Residence-In family and Old Age Homes

3.9.2 Dependent Variables:

Dependent Variables are answers to the questions given below

Physical Adjustment

(1) Vision (eye sight) is impaired:

(2) My memory power is diminished:

(3) I cannot work with full concentration:

(4) My hearing power is diminished:

(5) I feel difficulty while eating due to fall of teeth:

(6) Physical appearance is not as nice as before:

(7) I cannot have sound sleep:

(8) Joint pains:

(9) I have to be careful while taking food as my digestion power is diminished;

(10) Anxiety due to illness:
Economical Adjustment:

(1) I am unable to earn money:

(2) I have to ask for money to satisfy my needs:

(3) I cannot be helpful to my family members economically:

(4) I need job to earn money:

(5) Most of the saving has been spent after the children:

(6) Unable to give to my daughter as per social traditions also:

(7) Money is everything in life

(8) No one selects me for service (appointment):

(9) No money management has been done:

(10) My life has been dependent:

Emotional Adjustment:

(1) No one is helping me:

(2) No one respects me:

(3) People believe me an old man/woman

(4) I become angry as the work handed over to others, due to my physical disability, is not finished within the time:
(5) As I am old, people avoid talking with me:

(6) I have to live separate from my children:

(7) There is decrease in love towards me:

(8) I have to lead my life as dependent (burdensome) to others:

(9) I become unhappy by hearing comment from people that the old man has lost his intelligence:

(10) Thoughts of death visit very often:

Family Adjustment:

(1) Due to the new thoughts of my son and daughter in law I have to face clashes:

(2) Due to difference in thoughts children insults me:

(3) I have lost dignity in the mind of my life partner:

(4) My life partner insults me:

(5) Over liberty given to the children:

(6) Clashes due to difference of opinions:

(7) Grand children hate me:

(8) My suggestions for social trends are not taken into consideration:

(9) Family members avoid taking care of me:
(10) Mentality for hard work is not seen in my family members:

Social Adjustment:

(1) People do not meet me as before:

(2) Social status is lost:

(3) Unable to do social work due to the old age:

(4) I have to live with the changing society:

(5) People avoid to meet me:

(6) Unable to do any good to the society:

(7) No one is taking benefit of my life long experience:

(8) The state of loneliness gives me pain:

(10) The society does not accept my existence even I am not useful to the society:

3.9.3 Controlled variables:

Age-above 60 years

Areas-only South Gujarat Districts

3.10 Operational definition of the Concepts

Adjustment is change in style of living to adjust to Group around them. The central meaning of Adjustment is that of change of Attitude and Actions that may be applied for
peaceful daily living and in any such different context as Physiological, Emotional, Economical, Familial, and Social Adjustment of a person to family or group.

1 Physical Adjustment mean Vision weak; memory power is poor, one cannot work with full concentration; hearing power is weak, difficulty in eating due to less teeth, Physical appearance is less attractive, one cannot have sound sleep, Joint pains, digestion is poor; Anxiety due to illness

2 Economical Adjustment mean unable to earn money; one has to ask for money to satisfy needs; one cannot be helpful to family members economically; one needs job to earn money; most of the saving has been spent after the children; unable to give to daughter as per social traditions; money is everything in life, no one selects me for service (appointment); no money management has been done and life has been dependent

3 Emotional Adjustment mean no one is helping me; no one respects me; people believe me as an old man/woman, one becomes angry as the work handed over to others, due to physical disability, is not finished within the time; as one is old, people avoid talking; one has to live separate from children; there is decrease in love; one has to lead life as dependent (burdensome) on others; one becomes unhappy by hearing comment from people that the old man has lost his intelligence; thoughts of death come very often

4 Familial Adjustment mean due to the new thoughts of son and daughter in law one has to face clashes; due to difference in thoughts children insult; one has lost dignity from the mind of life partner; life partner insults me; over liberty given to the children; clashes due to difference of
opinion; grand children hate me; suggestions for social trends are not taken into consideration; family members avoid taking care; mentality for hard work is not seen in family members

5 Social Adjustment mean people do not meet one as before; social status is lost; unable to do social work due to the old age; one have to live with the changing society; people avoid meeting me; unable to do any good to the society; no one is taking benefit of life long experience; the state of loneliness gives pain; the society does not accept my existence even; one is not useful to the society

Male- Any Man of 60 years and above.

Female- Any Women of 60 years and above.

Senior Citizens/Elders/Old Aged Persons - Any old persons who are above 60 years of age.

Old Age Home - Institution which is approximately a home, to a person without one’s family members.

3.11 Assumptions of the Research

1-We have assumed that Old Age Persons residing with Families and in Old Age Homes have Adjustment problems in Bharuch, Surat, Navsari and Vapi Districts

2-Adjustment problems are uniformly distributed in all these four districts

3.12 Hypotheses of the Study

1-H1-Total adjustment is more in old age people staying in families than those staying in old age homes
H0- Total adjustment is same in old age people staying in families and those staying in old age homes

2-H1-Total adjustment is more in old age males staying in families than those staying in old age homes

H0-Total adjustment is same in old age males staying in families and those staying in old age homes

3-H1-Total adjustment is more in old age females staying in families than those staying in old age homes

H0-Total adjustment is same in old age females staying in families and those staying in old age homes

4-H1-Physical adjustment is more in old age people staying in families than those staying in old age homes

H0- Physical adjustment is same in old age people staying in families and those staying in old age homes

5-H1-Physical adjustment is more in old age males staying in families than those staying in old age homes

H0-Physical adjustment is same in old age males staying in families and those staying in old age homes

6-H1-Physical adjustment is more in old age females staying in families than those staying in old age homes
H0-Physical adjustment is same in old age females staying in families and those staying in old age homes

7-H1-Economical adjustment is more in old age people staying in families than those staying in old age homes

H0- Economical adjustment is same in old age people staying in families and those staying in old age homes

8-H1-Economical adjustment is more in old age males staying in families than those staying in old age homes

H0-Economical adjustment is same in old age males staying in families and those staying in old age homes

9-H1-Economical adjustment is more in old age females staying in families than those staying in old age homes

H0-Economical adjustment is same in old age females staying in families and those staying in old age homes

10-H1-Familial adjustment is more in old age people staying in families than those staying in old age homes

H0- Familial adjustment is same in old age people staying in families and those staying in old age homes

11-H1- Familial adjustment is more in old age males staying in families than those staying in old age homes
H0- Familial adjustment is same in old age males staying in families and those staying in old age homes

12-H1- Familial adjustment is more in old age females staying in families than those staying in old age homes

H0- Familial adjustment is same in old age females staying in families and those staying in old age homes

13-H1-Emotional adjustment is more in old age people staying in families than those staying in old age homes

H0- Emotional adjustment is same in old age people staying in families and those staying in old age homes

14-H1-Emotional adjustment is more in old age males staying in families than those staying in old age homes

H0-Emotional adjustment is same in old age males staying in families and those staying in old age homes

15-H1-Emotional adjustment is more in old age females staying in families than those staying in old age homes

H0-Emotional adjustment is same in old age females staying in families and those staying in old age homes

16-H1-Social adjustment is more in old age people staying in families than those staying in old age homes
H0- Social adjustment is same in old age people staying in families and those staying in old age homes

17-H1- Social adjustment is more in old age males staying in families than those staying in old age homes

H0- Social adjustment is same in old age males staying in families and those staying in old age homes

18-H1- Social adjustment is more in old age females staying in families than those staying in old age homes

H0- Social adjustment is same in old age females staying in families and those staying in old age homes

3.13 Sampling

For a research it is neither advisable nor fruitful to contact every unit of the universe. An attempt to have a contact with entire universe, may involve a big out lay of time, effort and money resources, which can be avoided by having a representative sample if adequate serves the very purpose for which universe is selected.

A sample as the name implies, is a smaller representative of a larger whole. The observation of some phenomenon in complete detail would involve such a mass of data that analysis would be slow and tedious. Moreover, to analyze large quantities of material is wasteful when a smaller amount would suffice.
The present research has been conducted on the basis to give equal distribution to each District i.e. 80 respondents per District, 50% of the total number of respondents are males (40) and females (40) per district, staying with Families (20) and equal number staying in Old Age Homes (20) for males and females individually. From each selected district respondents interviewed were selected by chance sampling technique. Total 320 respondents were interviewed.

3.14 Population and Sample

The Population for the present study comprised of south Gujarat’s four districts, which is the industrial area of Gujarat and has population of higher socioeconomic status, social patterns of interactions, Universe consists of total number of the units having different characteristic where in research was carried out. The information relevant to the topic is collected from the responsibilities sample of such universe.

The respondents selected for present study were those people who live with family and ones staying in Old Age Homes districts of Bharuch, Surat, Navsari, and Valsad.

This Research is concerned with the problems of Adjustment of Old Age People of South Gujarat hence the area of whole of South Gujarat is included in the Study

<table>
<thead>
<tr>
<th>Dist area</th>
<th>No of Old Age People residing with Family</th>
<th>Total</th>
<th>No of Old Age People residing in Old Age Homes</th>
<th>Total</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bharuch</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surat</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Navsari</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Valsad</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>Males: 20, Female: 20</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>Males: 80, Female: 80</td>
<td>160</td>
<td>Males: 80, Female: 80</td>
<td>160</td>
<td>320</td>
</tr>
</tbody>
</table>
No doubt, the sample was of a small size, but it is not possible to draw a large sample due to the less availability of the Old Age Homes and Respondents.

**3.15 Scale Description**

A Likert scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research. The scale is named after its inventor, psychologist Rensis Likert. When responding to a Likert questionnaire item, respondents specify their level of agreement or disagreement on a symmetric agree - disagree scale for a series of statements. Thus, the range captures the intensity of their feelings for a given item, while the results of analysis of multiple items (if the items are developed appropriately) reveals a pattern that has scaled properties. We have used seven point scale for our research.

In psychology, the Thurstone scale was the first formal technique for measuring an attitude. It was developed by Louis Leon Thurstone in 1928, as a means of measuring attitudes. It is made up of statements about a particular issue, and each statement has a numerical value indicating how favourable or unfavourable it is judged to be. People check each of the statements to which they agree, and a mean score is computed, indicating their attitude.

We have preferred Likert type seven point Scale as it is clear and precise.

**3.16 Tools Formation**

Inventory and scale was prepared by the researcher in 1993. Inventory and scale was passed through the following process.
First of all 150 blank papers were prepared and on the top of the paper it was written that it is my humble request to write down all the problems, difficulties and frustrations you are facing in your day to day life, in your own language, briefly and clearly on the given blank paper.

The old age adjustment problems are altogether different from the problems of childhood, youth and adulthood. It is important to prepare the inventory of the adjustment problems for old age persons. Following method was applied to prepare the inventory

Ten areas were given to old age persons are as under

1-Physical Health

2-Economical Conditions

3-Families

4-Dependency

5-Loneliness

6-Social status

7-Relation with others

8-Personal problems

9-Retirement

10-Other than mentioned above.
Respondents were requested to mention their problems, area wise to make list of problems and difficulties faced by them. Such request papers were given to 150 old age people of 60 years or above. All these persons had at least capacity to read and write.

Responses were returned in an envelope provided by researcher after giving them sufficient time to respond. 100 envelops were received out of 150 envelops. Out of 100 envelops, 30 envelops were selected at random and these respondents were personally contacted by researcher to discuss answers given to infer that answers were correct. The pool of old age adjustment problems was prepared on the basis of above 30 responses. These problems were divided in following groups (areas)

Loneliness

Illness

Economical dependency

Retirement

Death of near and dear

Dependencies on the relatives

Generation gap (conflict between old and new generation) Fear of death

The list of the statements was given to 60 persons to know their opinion regarding simplicity; language, correlation and the differences. Professor of psychology approved the area wise group of statements.
The inventory prepared was then distributed to 100 respondents and each one’s RPBIS (The Point Bi-Serial) was found. As respondents were old age people they felt tired and bored to answer such a long inventory. Inventory was simplified and divided in five sections of the problems and adjustment scales with help, guidance and co-operation of the professor of Psychology.

They are as under

1 Physical Adjustment

2 Economical Adjustment
3 Emotional Adjustment

4 Familial Adjustment

5 Social Adjustment

Each area comprises of 10 statements to be answered on scale of 7 points with each point help determine old age respondents adjustment.

Example of scale is as under

Physical adjustment

(1) Vision (eye sight) is impaired:

1. It disturbs me constantly ..........................

2. It disturbs me very often ..........................

3. It disturbs me ..........................................

4. It was disturbing me but not now .................

5. It was disturbing me very often but not now ........

6. It was disturbing me constantly but not now ........

7. It was not a question at all for me..................

Each statement has mean and median at count 4 which means that score 1, 2 and 3 shows highest degree of problem of adjustment. Count 4, 5 and 6 shows adjustment is not required now
and count 7 shows fully adjusted. One extreme of scale shows lots of adjustment is required where as other extreme reflects no adjustment is required.

In this scale 50 statements are given in the entire five areas i.e. Physical, Economical, Emotional, Familial and Social Areas. No principle is followed to decide number of statements prepared to explore the problems.

In the scale one has to give response on seven points adjustment scale. Seven options are given for replying each statement after reading the statement and its seven options. One carefully has to put the tick marks in appropriate box of the option the marks are fixed for each option.

The Marks are given from 1 to 7. Score 1 denotes highest problem intensity whereas score 7 denotes no problem at all. Thus at one end it shows heightened degree of non-adjustment and at the other end shows the absence of any problem showing highest level of adjustment.

In each area of adjustment 10 statements and 7 options were given. These seven point scale were given to different 30 person group not belonging to original group with for their studied response in filling the response sheet.

This scale was examined again for clear expression of thoughts and instructions. Complex sentences and vagueness in expression were removed. Revised scale was once again given to the new sample of another 30 old age persons.

The scale was re-examined for the responses given by old age people. Reliability and Validity of scale was studied and the final scale was established after ensuring reliability and validity.
3.16.1 Reliability.

Reliability was found by split half method

The reliability of final scale in five areas is as under.

<table>
<thead>
<tr>
<th>Areas</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Adjustment</td>
<td>0.62</td>
</tr>
<tr>
<td>Economical Adjustment</td>
<td>0.72</td>
</tr>
<tr>
<td>Emotional Adjustment</td>
<td>0.68</td>
</tr>
<tr>
<td>Familial Adjustment</td>
<td>0.91</td>
</tr>
<tr>
<td>Social Adjustment</td>
<td>0.62</td>
</tr>
</tbody>
</table>

3.16.2 Validity.

Content validity

Professors of South Gujarat University teaching Post Graduate level Courses were given this Scale. Their opinion confirms that Scale has required validity. We respect the opinion of learned professors to reconfirm fitness of Scale for our research purpose.

Face Validity

Scale which is prepared to find validity, correctly serves the purpose. It looks that Scale made by researcher measures what it is expected to measure. The old age respondents numbering
30 who were used for tryout confirmed that questions and options correctly convey meaning and choices as intended.

Interviewing Schedule

It was more appropriate to construct an interviewing schedule as tool of data collection. The basic reason in the construction of interview schedule was that the question might cause irritation among the respondents.

The other reason was that the questioners could create difficulties for the respondents to understand the real sense of the questions. An interview allows face-to-face discussion and makes easy to probe into the views and seek suggestions.

Since the majority of the respondents were moderately literate, therefore direct interview was necessary.

Interview schedule helps establishing a rapport and wins the confidence of the respondents to seek proper and complete response, according to the format of the questions.

The interview schedule maximizes the extent of completion because many respondents may have no opinion or thinking in clear terms about the subjects.

An interviewer can guide and motivate the respondents to think more seriously and develop a concrete consensus about the subject. Our Respondents answered the question with full confidence, even then the Researcher feels that answers to some questions may not be reliable. These questions were about their Social status and Family behaviour.
Presence of an interviewer enhances the probability of willingness to respond in the presence of the interviewer. It is possible to seek explanation about some questions which may be not clear to the interviewee.

If the respondents face any difficulty during the interview, Interviewer can explain the purpose and meaning of the questions. An interviewer can get more accurate and proper information through explanation of the purpose of the study informally and verbally in a simple manner. If the person giving interview finds any problem in Gujarati/English question bigger explanation can be given.

Interview schedule helps the respondents to collect other relevant information through observation during collation.

Questionnaire/Scale has totally 50 Questions in 5 Sections.

Data Collection Difficulty

The Researcher collected the data personally and she faced many difficulties. Advance appointments were made with some Respondents. The major difficulty was to locate the female respondents. Researcher faced difficulties in doing their interviews as they were quite hesitant of interview. It was in fact a matter of experience for the Researcher. Some respondents showed deep interest in the Research and helped to locate the other Respondents. Data was collected within the period of five months. It took 40-45 minutes to complete an Interview. Most of the interviews were completed in a single sitting.
In the research an attempt is made to test the hypotheses, which were formed in order to evaluate the various causes and consequences of senior citizens i.e. the relationship between the independent and the dependent variable.

3.17 Limitation of Study

Geographical area is limited to South Gujarat Sample size is 160, each for Males and Females, in both the categories i.e. 160+160=320. Caste, Education, Economic Status and Vocation, size of Family, Marital Status etc are not considered.

3.18 Data Analysis

Data collected will be analyzed in the following way

1-We have finalized 7 point scale (Likert type) for analysis. Respondents’ ticks are given Marks. Such marks are added for every area and all areas combined are added to determine final score of each respondent.

2-Frequency Distribution for all respondents is prepared and Mean and Standard deviation are arrived.

3-Statistical analysis is done on above basis

Following Graphs will be drawn from Frequency Distribution 320 respondents’ answers on Total Adjustment

320 respondents’ answers on Physical Adjustment

320 respondents’ answers on Economical Adjustment
320 respondents’ answers on Emotional Adjustment

320 respondents’ answers on Familial Adjustment

320 respondents’ answers on Social Adjustment

160 Male and 160 Female Respondents’ answers on Total Adjustment

160 Male and 160 Female Respondents’ answers on Physical Adjustment

160 Male and 160 Female Respondents’ answers on Economical Adjustment

160 Male and 160 Female Respondents’ answers on Emotional Adjustment

160 Male and 160 Female Respondents’ answers on Familial Adjustment

160 Male and 160 Female Respondents’ answers on Social Adjustment

4-T-Test will be applied on following basis. Two sets of Data, One Staying with Family and other staying in Old Age Home are compiled separately and Means are studied for significance.

Total Adjustment studied on

a- 160 Males and 160 Females staying with Family and Old Age Home

b- 80 Males staying with Family and 80 Males staying in Old Age Home

c- 80 Females staying with Family and 80 Females staying in Old Age Home

Physical Adjustment studied on
a- 160 Males and 160 Females staying with Family and Old Age Home

b- 80 Males staying with Family and 80 Males staying in Old Age Home

c- 80 Females staying with Family and 80 Females staying in Old Age Home

Economical Adjustment studied on

a- 160 Males and 160 Females staying with Family and Old Age Home

b- 80 Males staying with Family and 80 Males staying in Old Age Home

c- 80 Females staying with Family and 80 Females staying in Old Age Home

Emotional Adjustment studied on

a- 160 Males and 160 Females staying with Family and Old Age Home

b- 80 Males staying with Family and 80 Males staying in Old Age Home

c- 80 Females staying with Family and 80 Females staying in Old Age Home

Familial Adjustment studied on

a- 160 Males and 160 Females staying with Family and Old Age Home

b- 80 Males staying with Family and 80 Males staying in Old Age Home

c- 80 Females staying with Family and 80 Females staying in Old Age Home

Social Adjustment studied on

a- 160 Males and 160 Females staying with Family and Old Age Home
b- 80 Males staying with Family and 80 Males staying in Old Age Home

c- 80 Females staying with Family and 80 Females staying in Old Age Home

5- F-Test is used to study Mean derived on Total Adjustment of Respondents staying with Family and Old Age Home

6- Hypotheses will be examined on basis of Chi-Square Test
Regular naps prevent old age, especially if you take them while driving

Author Unknown