

CHAPTER 4
RESEARCH
METHODOLOGY

INTRODUCTION

Research in common parlance refers to a search for knowledge. The Advanced Learner's Dictionary of Current English lays down the meaning of research as a "careful investigation or inquiry specially through search for new facts in any branch of knowledge." Research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalizations, principles, or theories, resulting in prediction and possibly ultimate control of events (Whitney, 1950). Research is considered to be the formal, systematic and intensive process of carrying on a scientific method of analysis.

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It involves the various steps that are generally adopted by the researcher in studying one's research problem along with logic behind them (Rescoe, 1969). It is necessary for the researcher to design his methodology for his problem according to the design of his study.

In the present study the investigator has undertaken ex-post-facto type of research. Ex post facto research is that empirical investigation in which the investigator draws the inference regarding the relationships between variables on the basis of such independent variables whose manifestations have already occurred. In this type of research the investigator has no direct control over the

independent variables because they occur much prior to producing their effects (Singh, 1986)

STATEMENT OF THE PROBLEM

"A Psychological Study of Institutionalised Aged".

Objective No. 1

To study the effect of sex, age, and marital status on loneliness, locus of control, death anxiety, mental efficiency, and problems of old age.

Hypothesis

- 1) There will be no significant difference between old male and female subject with respect to five dependent variables and there sub-areas.
- 2) There will be no significant difference between old age groups 60-75 and 75 and above with respect to six dependent variables and there sub-areas.
- 3) There will be no significant difference between married and unmarried old people on six dependent variables and there sub-areas.

Objective No. 2

To study the effect of caste, rule of residence and educational qualifications on loneliness, locus of control, death anxiety, mental efficiency, old-age problems. In light of these following hypothesis are formed :

Hypothesis

- 1) There will be no significant difference between upper caste and lower caste elderly on six dependent variables and there sub-areas
- 2) There will no significant difference between old people belonging to urban and rural background on six dependent variables and there sub-areas
- 3) There will be no significant difference between old people of different educational qualifications (below intermediate and intermediate and above) on six dependent variables and there sub-areas

VARIABLES

Considering the present investigation, the following are the independent and dependent variables :

Independent Variables

- 1) Sex
- 2) Age
- 3) Marital Status
- 4) Caste
- 5) Rule of Residence and
- 6) Educational Qualifications

Dependent Variables

- 1) Loneliness
- 2) Locus of control
- 3) Death Anxiety
- 4) Mental Efficiency
- 5) Old Age Problems

Descriptions of the independent variables**1) Sex**

The most basic category, into which human beings are placed, is the category of sex-male or female. The social, economic and interpersonal structure of society may be considered to be the basis of this fundamental differences between sexes. All societies, from the simplest to the most complex, assign some activities to women and others to men. Each culture defines for itself what the respective social roles of the sexes are and how that social role shall allow for or incorporate the biological role. The sex-role of a person consist of the behaviour that is socially defined and expected of that person because of his or her status as a male or female. Rigid, mutually exclusive, appropriate abilities, tasks abilities, characteristics and attitudes are assigned differentially to men and women in all cultures.

Sex : Biological and Social Continuum. The biological differences between the sexes include distinctive sexual and reproductive characteristics. Only males produce prostatic fluid and semen, only female menstruate, become pregnant, give birth and lactate. The sexual differences between females and males include different chromosomes (genetic material), gonads (sex glands), hormones (estrogen & androgen), & genitals (sex organ). In all races men are taller and heavier, on average than women. Women have less body and facial hair than men, wider hips, and narrower shoulder.

The universal pattern of female responsibility for infant care is the clearest example of a social characteristics of sex. The infants are to be fed, taken care of, nurtured. Similarly tasks assigned to males and females clearly show sex difference. Females are expected to be at home, cook, clean, take care of children etc. While males are assigned to work, to furnish flourish one's business and bring money for family. This is true in a primitive and agricultural society where men grow crops, sell in market etc. Similarly Eskimos men provided the entire food supply of hunting, while the women did the cooking (Fried, 1975)

Recent secular trends indicate that traditional sex-role differentiations are breaking down especially in the area of education and work. Within a single generation, significant changes have taken place in the traditional

conceptions of what is masculine and what is feminine. These recent secular trends have affected our Indian society too, resulting in an increased flexibility in the roles and activities considered permissible for each sex.

Vogel and Clarkson (1972) have provided sex roles items based on gender of an individual.

<u>FEMININE</u>	<u>MASCULINE</u>
1) Not at all aggressive	Very aggressive
2) Very subjective	Very objective
3) Very emotional	Not at all emotional
4) Very submissive	Very dominant
5) Very passive	Very active
6) Home-oriented	Worldly
7) Feelings hurt easily	Feelings not hurt easily
8) Not Adventurous	Very Adventurous
9) Dependent	Independent
10) Difficulty in making decisions	Can make decisions easily
11) Very illogical	Very logical
12) Easily influenced	Not at all easily influenced
13) Lack of self-confidence	Very confident

The above mentioned list of well-established sex differences is not quite sufficient while Maccoby and Jackine (1974) found that there exist significant difference in verbal ability, visual spatial ability, quantitative ability and aggression. Considering verbal ability sex difference appears during early adulthood and continues to increase throughout adolescence and early adulthood. Girls score higher than boys on both simple verbal measures and high level verbal tasks such as reading comprehension, verbal creativity and understanding complex logical relationships.

Beginning in adolescence and continuing throughout the high school, males have been found to be superior to females on non-analytic spatial tasks that involve manipulation. Such tasks usually involve mazes, fitting shapes into their appropriate sized holes, mental rotations of two dimensional objects etc.

Sheran (1967) argues that females fall down on such measures of analytic thinking because the tasks also involves non-analytic spatial abilities. Thus, the sex differences found in analytic spatial abilities probably pertain to non-analytic spatial abilities.

Hyde (1981) suggested that sex differences in quantitative ability does not begin until early adolescence. Prior to this age the two sexes are similar in their acquisition of quantitative concepts and arithmetic skills, except in disadvantage

groups, where girls outperform boys. After puberty males tend to perform better than females on tasks requiring quantitative skills. This sex difference may be explained by boys' greater interest and training in mathematics.

Considering the emotion of aggression, the sex differences begin to show up at two to three years of age and continue throughout adulthood. Males have been found to be more aggressive than females in a variety of cultural settings, situations and measures. Males of all ages manifest more physical, fantasy, verbal and play aggression. Such findings led them to conclude that sex differences in aggression are biologically based (Levin 1957).

2) Age

In all societies, age is one of the important factors in determining the ways people behave toward each other. Certain biological and social events come to be regarded as significant punctuation marks in the life time. Age can be termed as statement of change. As biological age refers to changes in the functioning of the human organism through passage of time, social age refers to changes in individual role performance. The inevitability to age is the inevitability of change itself (Matilda, 1979)

Age, as reckoned by society, is a statement of behavioural expectations at given points in the life-span in all societies, age-status systems exist, in which duties, rights and rewards are differentially distributed to age groups. For example the 10-year old is expected to master geometry, while the 4-year old is expected not to, the 21-year old is permitted the full rights of voting, while 14-year old is not, the 35-year old is considered suitable for the adopting of a child, while the 45-year old couple is not (Streib, 1977).

Age also represents a categorial assessment of individual abilities to perform. Between birth and death, every organism goes through a predictable sequences of stages called life cycles. The life cycles include a series of transitions that involve taking of new roles or losing old ones. The life cycles in modern societies goes through various phases like

infancy, middle childhood, adolescent, young adulthood, middle adulthood and old age.

- i) Infancy . Human infants are born helpless. For a time they are completely dependent on others for survival. But children who have celebrated their third birthday are no longer babies. They are capable of bigger and better things, both physically and mentally. Youngsters grow more slowly in early childhood, between ages of 3 and 6 than during the preceding 3 years; but they make so much progress in coordination and muscle development that they can do much more. Intellectual development, too, continues at staggering pace. Children in this age group take huge leaps in their ability to remember, reason, think, and speak.
- ii) Middle Childhood : Compared with the pace of physical and intellectual development in early childhood, or infancy, development between ages 6 and 12 years may seem slow. Physical growth has slowed down considering while motor abilities continue to improve, changes are less dramatic than they were earlier. But development at these ages is still highly significant. Intellectual growth is substantial, child becomes more logical.
- iii) Adolescent . Adolescence is a developmental transition between childhood and adulthood. It is considered to begin at about age 12 or 13 and end in the late teens or early twenties. Adolescence is generally considered as beginning at puberty, the process that

leads to sexual maturity, when a person is able to reproduce. Intellectual maturity is generally considered to coincide with the capacity for abstract thought. Emotional maturity develops, concepts like discovery of identity, independence from parents, development of values system and ability to form, mature relationship of friendship and love emerge.

- iv) Young Adulthood . This is stage of setting priorities of our lives. The important decision made in these years affect health, careers, and personal relationships. This stage is a example of fine physical get-up, energy and endurance. Strength and poise are at its peak. The senses are also at their sharpest during young adulthood. Visual acuity is extremely sharp. Taste, smell and sensitivity to pain and temperature are extremely efficient.
- v) Middle Adulthood Middle - aged is when people reach their fifties, a turning point. Generally middle-aged people are in good physical, financial and psychological shape. They are likely to be in their peak earning years, and since their children are usually independent or nearly so, many are in the most secure financial position of their lives. Along with all these, this "prime time" of life has its stresses too. The middle - aged adult realizes that his or her body is not what is once was. In a youth - oriented and fitness - oriented society, wrinkles, sags, and stiff muscles are unwelcome signs of aging (Troll, 1985)

- vi) Old Age . The idea and concept of old age are as broad and subjective, as the time benchmarks of maturity, and the time of onset even more widely. The markers of old age are biological, psychological and sociological in nature.

A major benchmark of biological age is the loss of reproductive ability. This biological marker, in the form of menopause, comes to women when they are about 50 years of age. Grey hair is another benchmark of age, while physical decline is another one. With old age, sight and hearing usually deteriorate, breath becomes short, reflexes slow and balance may become impaired. Chronic illness is another benchmark, when illness becomes a part of daily life instead of a brief interruption, a sign of age has appeared.

Psychologists consider memory as a main marker of old-age. Psychologists also study age-related changes in perception, problem-solving, personality, motivation, self-concept and its effect on growing individual. Another way psychologists may approach adult development is by examining the relation between a person's commitment and attitudes and his actual behaviour or they may explore the effect of various situations such as stress or disease on mental health.

The arrival of age's social benchmarks is spread across decades. Becoming a grandparent is a traditional social benchmark of age, another

significant is retirement. The loss of one's parents is another marker of old age as it promotes a person into the oldest surviving generation, accompanying change in role and status in a family (Lowenthal, 1977)

3) Caste

The Indian caste system is unique among system of social stratification. This is not to say that no elements of caste are found elsewhere, but that caste as we know it, is found only in India. The first literary traces of the caste system are to be found in the Rig-Veda, where three groups are mentioned, Bhrama, (priests), Kshratiya (kings or rulers), and Vis (common people)

The term caste has come from the Portuguese word 'casta' meaning 'to be born'. The Sanskrit and Hindi equivalent of the term is 'Jat'. Caste system is primarily considered as 'jati' system. Every 'jati' group is segmented and re-segmented, depending on several criteria. A particular group may ordinarily an impression that it is a potential 'jati' group but at the same time empirical observations may indicate that it is a segment or a sub-segment of the 'jati' group. Therefore to study a caste is not only complex but equally difficult.

Various definitions have been given for the word 'caste'. Beteille (1965) has defined caste as "collection of families or group of families bearing a common descent from a mythical ancestor, born into a class from which they cannot escape". Cohn (1955) sees caste as "an endogamous or collection of endogamous groups, membership of which hereditary, following a common traditional occupation, and claiming common origin."

Dumont (1962) describes a caste having two mentioned characteristics, (1) membership is confined to those who are born, and (2) the members are forbidden by a social law not to marry outside the group Galanter (1963) explains caste that is a system of stratification in which mobility, movement up and down the status ladder, atleast ideally may not occur A person's ascribed status is his life time status

The Origin of Caste System . The exact origin or caste system can not be traced. The system is said to have originated in India. The records of the Indo-Aryans culture contain the first mention and a continuous history of the factors that make up caste

- (i) Racial Theory . Majumdar (1958) finds that caste system took its birth after the arrival of Aryans in India. In order to maintain their separate existence the Indo-Aryans used for certain groups and orders of people the favourite word 'varna' or 'colour'. Rigveda stresses very significantly the concept of 'varna' not only in colour but in their speech, religious practices and physical features.
- (ii) Political Theory Ghurye (1961) states that caste system is a clever device invented by Brahmans in order to place themselves on the highest ladder of social hierachy. In the Brahmans period the position of the Brahmanas increased manifold. The three lower classes are ordered to live according to the teaching of the Brahmanas, who shall declare their duties. Brahmanas closed their

ranks and tried to maintain their superiority over others. Distinction began to be made between things pure and impure. Restrictions were imposed on food and drinks.

(iii) **Evolutionary Theory** According to this theory, the Indian caste system did not originate all of a sudden or on a particular period or date. It is a result of long process of social evolution. And number of factors played their part in the process of emergence of caste system in India. Among these factors following are some of the significant ones:

- 1 Hereditary occupations,
- 2 The supremacy of the Brahmanas;
- 3 Lack of rigid unitary control of the state,
4. Unwillingness of rulers to enforce a uniform standard of law,
- 5 Clash of races, colour prejudices and conquest;
- 6 Geographical isolation of the Indian peninsular,
- 7 and static nature of hindu society.

All the above factors conspired to enforce the formation of small groups based on petty distinctions from time to time

(iii) **Restriction on foods and drinks** The general rule applicable to caste system is that every caste is having specific rules defining from which other caste will be accepting the food items. Although food taboo associated various caste groups are not uniform but

holds as a significant aspect of casteism. Food used among the caste groups in India can be broadly be categorized into four major types : 1. raw food, 2. food made in water, 3. food made in ghee, and 4 garbage Brahmins, Kshatriyas, Vaishyas, Shudras and untouchables being governed by specific rules pertaining to acceptance and giving of food from Brahmins accept raw food from other castes, rarely they accept food from other caste just placed below them in hierarchy. While food made in water & garbage are not at all accepted by brahmins from any other caste groups Paradoxial to that, the untouchables accept all the food items from every caste group The kshatriyas and vaishyas accept raw food from all, food made ghee and water from brahmins.

This clear cut arrangement clearly illustrates that more the food items a caste receives from the other castes, lower will be its position, and less number of food items a caste group receives from other castes, superior will be its position in the caste hierarchy.

Characteristics of caste system,

- i) Segmental Divisions of society · Ghurye (1953) points that every caste is governed by a caste council. The caste council is endowed with executive, legislative and judiciary powers which helps in law

application concerning only their caste or sub-caste. Every caste group being adhering a given set of moral values, stands different from that of the other caste units. Furthermore every caste group is governed by a unique set of values, rights, and rituals, dieties and way of worshipping. It also adheres to a specific type of food habits and living style. Their unique set of rules are exclusively identical.

- (ii) Hierarchy : Hierarchy refers to a scheme of arrangement where a group of people are placed above the other. In Indian caste scenario, the brahmins were occupying the top-most position and untouchables were placed at the bottom. If one looks into the caste system in India from both historical and empirical perspective it will be realized that different caste groups were proclaiming superior status than equals and equal status to that of the superior. That has given an ambiguous picture where exact placement of the caste groups in caste hierarchy is difficult to determine.
- (iii) Restricted choices of occupation : Each caste is associated with a given type of occupation allocated to members on the basis of ascriptive criteria. This primarily gives rise to the continuity of occupation in the line caste identity in Indian society. Srinivas (1984) has analysis of occupational specificity of caste system advocate that occupational change was not permitted in the caste because of people's commitment to the moral values. For example the bramans were allocated duties like performing rituals,

sacrifices, teaching and preaching, while kshatriyas's basic occupation was to be a warrior or fighter. The Vaishyas undertook business affairs and sudras were associated with degrading jobs.

Recent analysis of caste have shown that caste is undergoing an adaptive process. In this process, some aspects of the nature and functions of caste have declined in their significance, while others have come up.

4) Marital Status

Marriage is considered as the most fundamental social institution found in every society and culture. Marriage is considered as a social institution that provides social sanction to a male and a female to have sexual union, to take a residence, and to reproduce children for the continuity of their lineage.

The real meaning of marriage is the acceptance of new status, with a new set of privileges and obligations, and the recognition of this new status by others. Marriage is considered to be a process where a male and a female enter into a relationship which is approved, accepted and liked by related family members.

Types of Marriages

On the basis of number of males marriage can be identified as monogamous and polygamous. On the basis of the degree of authority it can be identified as patriarchal or matriarchal. On the basis of choice of mates it can be identified as love marriage or arranged marriage. On the basis of nature and form of residence it can be identified as patrilocal, matri-local or unilocal. On the basis of payment at marriage, it should be identified as dowry based marriage or bride price-oriented marriage. On the basis age at marriage it can be divided into two types - child marriage and adult marriage. Sociologists while talking about marriage specify

some common forms of it widely existent in different communities and cultures :

- (i) Monogamous : Marriage refers to a union between a male and a female that is legitimized by the society.
- (ii) Polygamous : Marriage refers to a plural union where a number of males are legitimately permitted to have sexual union with a number of females. Polygamy can be sub divided into two fundamental types such as polygyny referring to a legalised sexual union between one male and two or more than two females, and polyandry referring to a legalized sexual union between many males and female.
- (iii) Sororate : refers to a pattern of arrangement in which after the death of the wife a person is permitted to marry his wife's sister.
- (iv) Levirate refers to a form of marriage in which a woman is permitted to marry her dead husbands brother
- (v) Sororal : means a marriage where a man is permitted to marry two or more than two sisters at the same time
- (vi) Adelphic : refers to a marriage in which a lady is permitted to marry two or more than two brothers
- (vii) Hypergamy : is a form of marriage where a higher caste male married to a lower caste female.
- (viii) Hypogamy : refers to marriage between lower caste males and higher caste female.

Marital status refers to the status a person has in the matter of married life. Marital status has three different forms which are usually referred to as married, unmarried or divorced.

5) Rule of Residence

It has been traditional to classify human residence as rural or urban, depending upon whether their populations were small and agricultural or larger and industrial or commercial. The social life people lead is affected by the community in which they live. The community is as old as humanity - or even older, for our subhuman ancestors probably shared a community life. A community includes grouping of people, within a geographic area, division of labour, common culture etc.

Criteria to distinguish

Sociologists have laid down a number of significant criteria for distinguishing the rural social world from the urban social world, following are the most important criteria for distinguishing rural and urban world :



		RURAL WORLD	URBAN WORLD
1)	Occupation	totality of cultivators and their families In the community are usually a few representatives of several non-agricultural pursuits	totality of people engaged principally in manufacturing, mechanical pursuits, trade, commerce, professions, governing and other non-agricultural occupations
2)	Environment	Predominance of nature over anthropo-social environment Direct relationship to nature	Greater isolations from nature, pre-dominance of man-made environment, made of steel and iron
3)	Density of population	In the same country and at the same period the density is lower than in urban community Density and rurality are negatively corelated	Greater than in rural communities Urbanity and density are positively co-related
4)	Heterogeneity & homogeneity of population	Compared with urban populations, rural communities are more homogeneous, negative corelation with heterogeneity	More heterogeneous than rural communities, urbanity & heterogeneity are positively corelated
5)	Mobility	Territorial, occupational and other forms of social mobility are less intensive The migration is from village to town or city	More intensive Urbanity and mobility are positively correlated The migration is from city to other country
6)	Limit of Interaction	Less numerous contacts per man Narrower area of the interaction, predominance of personal and direct relations, very in formal and comparatively simple and sincere relations	Numerous contacts Wider area of interaction, predominance of secondary contacts, impersonal, casual & short - lived relations Greater complexity, manifoldedness, superficiality, and standardized formality of relations

Traditional Characteristics of Rural Life

Reflections on rural society, indeed are as old as the rural society itself. It has own distinct characteristics quite in sharp contrast of urban life. Following are some of its characteristics

- (i) Agriculture Since economic production is the basic activity of a human aggregate, the mode of production plays a determining role in shaping the social structure. Rural society is based predominantly on agriculture. Land is the basic means of production in village setting. From land, rural people produce, by means of technique and their labour power, agrarian products such as cotton, jute, tea, coffee, and other products.
- (ii) Caste System : A caste is an important ingredient in village or rural composition. In case of India, caste largely determines the function, status, social life of an individual which is total absent in urban life.
- (iii) Rural Religion : A thorough study of rural religion and its significant role form an essential part of village life. It has been observed by sociologists that all over the world rural people have greater predisposition to religion than what urban people have. Also religious outlook of the rural people dominates their intellectual, emotional, and practical life. Their family life, caste life, general

social life, economic and even recreational life are more or less governed by religious approach and religious norms

- (iv) Rural Family · Among the institutions that compose rural society, family is the most important one. It has been the very foundation, place of decisive role in the material and cultural life of the rural aggregate. Joint family system in Indian society is the hallmark of rural pattern of family.

Traditional Characteristics of Urban Life

The city is a place of contrast. They are centers of learning, of arts, of science and medicine, of excitement, glamour and progress. In short the city reveals in vivid contrast most of the dominant characteristics of the culture (Mark, 1980).

- (i) Anonymity The sheer pressure of numbers makes an anonymity. Of course there are groups within which the urbanity is known, but much of routine life is spent in the anonymous crowd. The heterogeneity of city life with its mixture of people of all races, creeds, classes, occupations, and ethnic origins heightens the sense of anonymity.
- (ii) Social Distance City people are physically crowded but socially distant. Social distance is a product of anonymity, impersonality, and heterogeneity. The city has no common personal focus which serves as a common interest for urbanities.

Thus, most of the people whom one "meets" in the course of a day - neighbours, passer by, sales persons, professionals, passengers - are persons with whom one has no enduring interest and has only the most fleeting contact. Contacts in urban life are more impersonal, segmented, and formal (Booth, 1976)

- (iii) Crowding : Crowding is a condition as well as situation where one lacks desired space or privacy. Crowding is a very significant aspect of cities where it produces social disorganisation and pathology (Fisher, 1976)
- (iv) Urban Personality : Sociologists concern as what effects do the conditions of urban life have upon urban personality ? Sorokin and Zimmerman (1929), concluded that urban life creates a distinct typical personality which is anomic, materialistic, impersonal, hurried, superficial, manipulative, and inclined towards insecurity.

6) Educational Qualification

Education has been defined many times by many persons. Each definition reflects either the personal view of the individual or that of the field of knowledge of which he is an exponent. To the biologist, education is largely adaptation, to the psychologist, it is synonymous with learning; to the philosopher, it is what reflects the school of thought to which he belongs (Kaushik, 1999).

Education is the consciously controlled process whereby changes in behaviour are produced in the person and through the person within the group. Education can be said as a process that begins at birth and continues throughout life. Education involves changes in behaviour, and all such changes imply growth, whether the changes take place in a desirable or undesirable direction (Coleman, 1975).

According to thinkers in ancient India, Vidya or Knowledge was considered as the "third eye" of man, which gives him an insight into all affairs and teaches him how to act; it leads us to all round progress and prosperity. It increases our frame, makes us pure and cultured. A person who does not possess the light of education may be described as blind.

The following verse is a common saying in India .

"SWADESH PUJYATE RAJA
VIDVAN SARVATRA PUJYATE"

(A king is respected in his own kingdom, whereas a learned man is worshipped everywhere) (Aggarwal, 1996)

Education plays a very significant role in moulding the ideas, habits, attitudes, interests and values of individual with a view to producing well-balanced personalities; culturally rich, emotionally stable, mentally alert, morally upright, socially efficient, spiritually enlightened, vocationally self-sufficient and internationally liberal

Functions of Education

The present rapid changes in our culturally pattern, the development of material world of man-made commodities, the breakdown of traditional modes of behaviour and the resulting emphasis upon social structure and social processes dictate the functions of education

- (i) Manifest functions of education . The two most important manifest functions of education are to prepare people to make a living and to help people reach their potential for personal fulfillment and social contributions

The other manifest functions of education are : enrichment of life by enabling students to expand their intellectual and aesthetic horizons, improving personal adjustments, improving the health of nations youth through exercise and hygiene, producing patriotic citizens; promoting racial integration, building character, participation by teaching the person to think rationally and independently

- (ii) Latent functions of education Assimilation of tradition is a basic function of education. The biological counterpart is inheritance; its sociological aspect is assimilation process - processes through which the folkways and mores, together with the institutional patterns in social organizations are transmitted to each new generation. Many agencies contribute to achieve this function of education, beginning with the family, and carrying, through the formal agencies like school and religious organizations

Assimilation of tradition is but one, though perhaps the most important function of education. The second is the development of new social patterns. Social patterns depends upon the modifications of social heritage as it does upon the incorporation of the past culture and traditions, from group to group and from the old to the new group

The third function of education - its creative or constructive role is less tangible but equally important. It entails providing for the development of open-mindedness to meet the changes which have already begun and will inevitably increase in our dynamic world. This function is in a sense, idealistic in that it can be only approximately achieved. The first step in its realisation is the development of an awareness of difference between what is and what can be (Payne, 1956)

Educational qualification of a person is significant indicator of his achievement in the field of education. A person is said to be qualified when he/she undergoes training from an institution which is formal in nature. Training requires fulfilling all the necessary rules laid down by the institution, at the end of which he or she would be obtaining a certificate or the degree which confirms his or her cessation of training.

Dependent Variables

1) Loneliness

Social relationships are at the core of human life. Not surprisingly, problematic aspects of relationships have been a major focus of psychological research and research on loneliness is no exception. Researchers have investigated instances where there are 'too many' people and individuals feel subjectively crowded (Stokols, 1972). However, little attention has been given to the other end of the continuum, where social relationships are 'too few' and people feel subjectively 'lonely'.

The importance of loneliness lies not only in its potential for shedding light on basic aspects of social relations but also in the fact that loneliness is a common and distressing problem for many people. In one National Survey (Bradburn, 1969), 26% of Americans reported having felt 'very lonely' during the past few weeks. Loneliness is linked to a variety of other serious individual and social problems, including alcoholism (Nerviano & Gross, 1976), adolescent delinquent behaviour (Brennan & Anuslander, 1979), suicide (Wenz, 1977), physical illness and overutilization of health care services (Lynch, 1976), Cancer patients, socially disadvantaged, deprived women, and single women (Seth, 1982).

Loneliness and problems of elderly are directly related. Feeling of loneliness alienation affect elderly in a bad way. It is usually seen feeling of loneliness attack the elderly in three spheres. It is not mandatory that loneliness encompasses all these three areas but usually affects all of them, physical, psycho-social and economic.

Physical conditions of the elderly have certain limitations where failing eyesight, hearing deficiency, decreased mobility, heart ailment, strokes etc. all contribute an elderly to be deprived from interaction with people. They lag behind and are left alone.

Psycho-social reasons are more than enough to develop feeling of alienation among elderly. Loss of memory, of comprehension capacity, lack of emotional support, lack of adjustment, selfishness and uncaring attitude of young ones, little attention and care provided by the family members all are significant for an aged to develop feeling of loneliness and meaninglessness.

There are economic reasons behind the development of loneliness. The old people are consumers and not producers, and thus have to depend for their survival to next generation. This dependence creates lots of emotional issues among elderly. They are not treated fairly, often abused

and insulted, they slowly move away from their children and money earners. This phenomena of drifting apart is the hallmark of feeling of being lonely

2) Locus of Control

The role of reinforcement, reward or gratification is universally recognized as a crucial one in the acquisition and performance of skills and knowledge. An event regarded by some persons as a reward or reinforcement may be differently perceived and reacted to by others. One of the determinants of this reaction is the degree to which the individual perceives that the reward follows from or is contingent upon, his own behaviour or attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions. When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is entirely perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labelled this a belief in external control. If a person perceives that the event is contingent upon his own behaviour or his own relatively permanent characteristics, we have termed this a belief in internal control.

In the simplest form, the basic hypothesis is that if a person perceives a reinforcement as contingent upon his own behaviour, then the occurrence of either a positive or negative reinforcement will strengthen or weaken potential for that behaviour to recur in that same or similar situation. If he

sees the reinforcement as being outside his own control or not contingent, that is depending upon his fate, chance, powerful others, or unpredictable, then the preceding behaviour is less likely to be strengthened or weakened

Origins and Development of Internal - External Orientations

Social learning theory (Rotter, 1954) provides the general theoretical background for this conception. In social learning theory, a reinforcement acts to strengthen an expectancy that a particular behaviour or event will be followed by that reinforcement in the future. Once an expectancy for such a behaviour - reinforcement sequence is built up the failure of the reinforcement to occur will reduce or extinguish the expectancy. As an infant develops and acquires more experiences he differentiates events which are casually related to preceding events and those which are not. It follows as a general hypothesis that when the reinforcement is seen as not contingent upon the subjects own behaviour that its occurrence will not increase an expectancy as much as when it is seen as contingent. Conversely, its non-occurrence will not reduce an expectancy so much as when it is seen as contingent. It seems likely that depending upon the individual's history of reinforcement, individuals would differ in the degree to which they attributed reinforcements to their own actions.

Internal - External Control

According to Rotter, people acquire generalized expectancies to perceive reinforcing events either as dependent upon their own behaviour or as being beyond their control (Rotter, 1966). Internally oriented people tend to believe that reinforcers are subject to their own control and occur as a result of displaying their skills. Externals, in contrast, see little or no connection between their behaviour and various reinforcers, instead they perceive the occurrence of the reinforcers as being determined by fate, luck, or powerful others.

The bulk of the research literature indicates that beliefs in internal control are learned initially in families where the parents are warm and supportive to their children, praise their achievements, and do not exert authoritarian control over the behaviour (Crandall, 1973).

Various studies have shown the internals not only believe they have the power to affect their outcomes, but they actually perform more effectively than their external counterparts. These investigations further indicate that internals are more cognitively active and flexible, and learn the rules necessary to solve problems more quickly. They also gather more information than externals about their situations in an attempt to cope with and control situations and outcomes. If internals have more information about the situations and greater problem-solving ability than externals, it

should not be surprising that they are more resistant to influence from others.

Research has also shown that internals attribute their failures internally, whereas externals rely on external attributions. That is, internals attribute their failures to a lack of ability and or little effort whereas externals blame their failures on bad luck or on the difficulty of the task (Phares, 1976). Internals not only tend to resist influence attempts by others, but when given an opportunity, make more efforts to control the behaviour of others. They also tend to like to manipulate and dislike those they cannot influence (Silverman & Shrauger, 1970)

3) Death Anxiety

Human societies have always given death their most elaborate and reverent attention. Some of the world's most gigantic constructions, its most splendid works of art, and its most elaborate rituals have been associated with death (Williams, 1990). Death is a highly personal matter and its meaning tends to vary from individual to individual. In one manner or another, everyone must adapt to the fact of dying and death. People differ considerably, however in the degree to which they are consciously aware of death. The Duke University researchers have found that the elderly are no exception. Some visualize death as the dissolution of bodily life and the doorway to a new life, a passing into another world. Elderly often express the belief that in death they will reunited with loved ones who have died, while some elderly who look death as resignation of life or cessation of being (Jeffers & Verwoerd, 1969).

Three Aspects of Death

There are at least three aspects of dying, the biological, the social, and the psychological.

The legal definition of biological death varies from state to state, but in general, biological death is considered the cessation of bodily processes. A person may be pronounced dead when the heart stop beating for a significant period of time or when electrical activity of brain stops.

The Social aspects of death revolve around funeral and mourning rituals and legal arrangement for the inheritance of power and wealth. Social aspect of death has two parts, the termination of a role as played by the dead may be as father, son, boss, worker, member of a club and taking the charge of that particular role by someone else."

The psychological aspects of death involve the way people feel both about their own death as it draws near and about the death of those close to them

Facing Death

Thanatologists are finding that dying, like living is a process. While there are different styles of dying - in much the fashion that there are different styles of living - there are a number of common elements to the death experience.

Kubler - Ross (1969) has observed that dying persons typically pass through five stages. But not everyone goes through all the stages. Moreover, there can be some slipping back and forth between the stages, and in some cases several stages may occur at the same time.

The first stage is one of denial. Most people respond with shock to the knowledge that they are about to die. Individuals resist acknowledging the reality of impending death. In effect, they say "NO" to it.

The second stage is of anger. After realizing that they are dying, people become angry. They become envious and jealous of those around them who are young and healthy. During this stage a dying person makes life difficult for others, criticizing friends, family, and medical profession. They ask, "WHY ME" ?

The third stage is of bargaining, is a middle stage. Dying individuals often begin to bargain with God, fate, or the illness itself, hoping to arrange a temporary truce. For instance, a person may say, "Just let me live enough to attend my son's marriage," or "I won't ask for anything more." In turn the patient promises to be "good" or to do something constructive during his or her remaining time alive.

The fourth stage is of depression, where the dying people began to mourn their own approaching death, the loss of all the people and things they found meaningful and the plans and dreams never to be fulfilled - they experience what Kubler - Ross terms "preparatory grief."

The last and the fifth stage is one of acceptance, where people can acknowledge. People who have worked through their amenities and anger about death and have resolved their unfinished business end up with a feeling of peace with themselves and the world. In most cases they are tired and quite weak. Acceptance should not be mistaken for a happy stage. It is as if the pain had gone, the struggle is over.

Death in adolescence or adulthood may still be regarded, but by old age, it has come to be viewed as a frequent, though unwelcome companion on life's journey (Stillion, 1995). Fear of death and irrational ideas about it are widespread features of aging process. Such people tend to be withdrawn, would focus on their own reactions, would feel unloved and would be easily offended. The negative relationship with activity would reveal such persons as feeling very inadequate, sustaining low level of activity, little or no interest in daily activities (McMordie, 1979). On death anxiety an elderly would not be a successful person in social situations. Such persons would not meet people easily would not feel comfortable with strangers and would experience low self-esteem. Such people have serious interpersonal disturbance in the adjustment patterns (Swenson, 1961).

4) Mental Efficiency

- (i) Memory Memory is a critical part of all cognitive processes, because it is involved whenever we maintain information over time. Memory involves maintaining information over time. Failing memory is often considered a sign of aging; many older people report that they forget things, but that does not indicate that forgetfulness is an inevitable consequence of aging. Many older people retain their ability to remember details far into old age, but there is no doubt that aging is usually accompanied by changes in the memory system (Lavigne, 1985).

Short term memory is a limited capacity that keeps information in consciousness. Although older people can retrieve as many items from short-term memory as younger people, it takes them longer to do so. The reason for the reduced efficiency of memory has not been established. Some researchers believe that declines are signs of diminished processing resources. Others have suggested that they are the result of a decreased flexibility in processing, which makes it more difficult to shift from one process to another (Dobbs and Rule, 1989).

Long term memory is assumed to be a system with unlimited capacity. It is the storehouse of our past experience holding the contents of memory, memories of childhood, our knowledge about the world and about how to do things (Salt-house, 1982). Older people's long term memory for newly learned information is different from their memory for newly learned material as in the distant past. Memory for newly learned material drops off significantly with advancing age over a period of hours or days, younger adults can remember such newly learned material as word pairs and paragraphs better than older people do (Craik, 1977, Poon, 1985). But the ability to recall long ago events not generally affected by advancing age (Poon, 1985).

- (ii) Depression : Depression can be a major hurdle in efficient working of any individual. Some mental and personality changes that seem to indicate brain disorders are actually the result of depression. Many older people suffer from a variety of more or less disabling aches and pains; have lost spouses, siblings, friends, and sometimes children. Symptoms of depression in old age are extreme sadness, lack of interest, enjoyment in life, loss of weight, insomnia, fatigue, feelings of worthlessness or inappropriate guilt, loss of memory, inability to concentrate, and thoughts of death or suicide (Blazer, 1989).

- (iii) Motivation · Older adults motivation may also be influenced by their beliefs in their own memory abilities, strengths, and weakness Bandura (1989) indicates that our judgement of our competence in a particular situation, which he calls self-efficacy has a powerful effect on how well we learn and remember in various situations Motivation invariably affects performance A person who has no interest in the outcome of an experiment is unlikely to strive for peak performance

5) Old Age Problems

- (i) Physical Health We, in our daily life often confuse the concept of aging and illness, and assume that to be old is to be ailing, and the absence of illness is often interpreted as the absence of aging. All of us from the youngest baby to the oldest centenarian may develop any type of illness. Across adulthood each individual tends to have more illnesses each year, although each separate illness is likely to be less severe. Most older people have at least one chronic condition, the most common are arthritis (48 percent), hypertension (37 percent), heart disease (30 percent); cataracts (16 percent), hearing impairments (30 percent), and impairments of the legs, hips, back or spine (17 percent). But people over 65 have fewer colds, flu infections, and acute digestive problems than younger adults (AARP, 1989). In any case older people need more medical care than younger ones. They go to the doctor more often, are hospitalised more frequently, stay in the hospital longer and spend more than 4 times as much money on health care (Binstock, 1987).

Determining the condition of an elderly person's health is often difficult. In order to assess health, one must know the person's actual physical condition, his or her level of functioning, and what the older person expects of himself as well as what others expect the person to be able to do (Hickey, 1980).

- (ii) Family Our most important relationships occur within the context of the family. Our first relationships are with our parents - as we grow up and are socialized within the family unit. Siblings, grandparents, and perhaps sometimes stepparents become important in some families, aunts, uncles and cousins play important roles. Our relationships with our first family endure as we find mates, establish new families of our own, and continue the cycle of generations. Within the system, each member has a series of roles that at any time are determined by age and gender. Each family goes through stages of development that occur whenever new members are added by birth, adoption, present members leave to take jobs or establish their own families. Family roles and structures are also affected by changes in the type of changes of status (parenthood, grandparenthood, widowhood), change in job (promotion, occupations) and historical events (wars, depressions, technological changes) (Hill & Mattessich, 1979)

Over the past 50 years family structures have changed in other ways. Increase in life expectancy and decrease in fertility have led to the emergence of the beanpole type of family where there are more living generations but fewer members in each generations (Bengston, Rosenthal, & Burton, 1990) As the proportion of four -

and - five generation families grows, relationships with parents, grand parents, and great grandparents increase in duration. Although families have become more diverse, still it continues to fulfil its primary functions. It socializes children, preparing them to take on adult roles and transferring the culture from one generation to the next.

- (iii) Economic In an industrialized society, major source of income is wages, and the total amount received over the life-course depends upon productivity, the value of the job, and the length of time worked. The financial position of older adults as a group has improved dramatically in the past few decades. One reason for their rising economic status is the change in the nature of people entering old age. In the past, older adults seemed content with life. Many lived with wars, drought, partitions, and all grew up in a society that made no provisions for old age. Today retirement is seen as earned right, and when adults retire, their income drops considerably. This affects them in several ways, involving series of losses: the loss of income, occupational identity, social status, associates & daily structure of time and activities (Robinson and Paul, 1985).

(iv) Religion . Religion is important in the lives of large majority.

Religiously refers to all kinds of religious involvement including personal religious practices, following fundamental beliefs, beliefs, practicing rituals and attending religious or holy places. An increase in the personal meaning of religion during later adulthood is in accord with Erik Ericson's (1982) view of development. Hope, which is the basic strength of infancy, ripens to faith in old age. Many older adults find that religion helps them get through difficult periods and cope with stresses of life. No matter what sort of stressful event they encountered, elders handled the stress by placing their trust in God, by praying, and by obtaining help and strength from God (Koenig and Siegler, 1988).

(v) Personality

Each one of us are unique. Our ways of thinking, feeling, and reacting to the environment are not exactly like anyone else's. Within each individual is a thread of consistency that accounts for similarities in his or her behaviour in various situations and explains why placed in same situations two people respond differently. That consistency is called personality. Personality is reflected in behaviour, attitudes, values, feelings, moods, and motivation.

For personality theorists, adults progress through a series of stages in which the structure of their personality change as their emotional energies are focussed on different issues. For example, establishing a career or becoming a parent leads to similar personality changes in people regardless of their age.

Neugarten (1968) found four major personality types among older adults:

- (1) Integrated; integrated people are well functioning people with a complex inner life, a competent ego, intact cognitive abilities, and a high level of satisfaction. They ranged from being very active and involved, with a wide variety of interests.
- (2) Armor - defender are those people achievement - oriented, striving, and extroverts. They are the one whos stayed fairly active, used unlimited energy, socializing and experience showed moderate to high levels of satisfaction.
- (3) Passive - dependent people either sought comfort from others or were apathetic. Some who depended on others were moderately or very active. Others who had been passive all their lives, did little showed medium or low satisfaction.
- (4) Unintegrated people were disorganised with gross defects in psychological functioning, poor control over their emotions, and deteriorated thought. They remain with low activity and low satisfaction.

Description of Tools

1) Post Graduate Institute (PGI) Battery for Assessment of Mental Efficiency in the elderly

This test was developed by Adarsh Kohli, S H Varma and Dwarka Pershad to measure mental deficiency in the elderly persons of 60+ age. The test is made up of four sub-test namely, (i) Set Test, (ii) Mental Status Questionnaire (iii) Nahar and Benson Scale & (iv) Geriatric Depression Scale. The tests are described below

(i) Set Test - It is a verbal test wherein the subject is required to respond 10 items in four different categories such as colours, animals, fruits and cities. The number of correct responses in each category forms the total score i.e. score of one. The subject is asked to give 10 names of cities. Every correct response is given score of 1. Thus, the score will range from 0-10 in each category. The total score on all the categories will range from 0-40.

(ii) Mental Status Questionnaire

This test consists of 10 simple questions for example "Where is this place located?" "What month is it?" etc. (recent & remote) as well as general information. Each correct response is given score of 1. Thus the score may range from 0-10.

(iii) Nahar & Benson Scale

This test is a measure of percept and motor equity. It consists of 8 drawings which have to be made by the subject including three items requiring written/verbal instructions to be followed. The design are much like those of Bender Gestalt test but include two depth perception items. Every correct response is given score of 1. The score will range from 0-8.

(iv) Geriatric Depression Scale

The original scale was in English, consisting of 30 items, which was adopted in India. It contains 20 items and has high split-half reliability ($r = .82$). It correlates high ($r = .98$) with the original scale (30 items). It is specially designed to elicit depression in the elderly, higher the score greater is the depression. In positively worded items a score of 'yes' is given a score of 1 while negatively worded items response of 'no' is given a score of 0. On item number 1, 7, 11 and 20 a 'no' response is given score of 1 while on remaining items a 'yes' response of 1.

Precautions of use of the battery

A good rapport with the patients is necessary to get their cooperation for reliable results, otherwise low efficiency scores could be related to poor motivation also - atleast partly. The tests

can be administered in any order but the given is preferred for comparable results and uniformity sake

2) Thakur's Death Anxiety Scale

The death anxiety scale was developed by G P Thakur and Manju Thakur. The scale is made up of 16 statements. Statement nos 1, 2, 4, 5, 7, 9, 10, 12, 13, 15 and 16 were positively worded and statement nos. 3, 6, 8, 11 and 14 were negatively worded. Each statement had five response categories namely - quite true, true undecided, false and quite false. Responses on the positive worded statements were given a score of 5, 4, 3, 2 & 1 for the quite true, undecided, false, and quite false. The scoring procedure was reversed in case of worded statements i.e. a quite true response was given a score of 1, true response 2, undecided 3, false response 4 and quite false 5. The minimum score on the scale would be 16 and maximum would be 80.

(i) Reliability

The death anxiety scale was administered to a sample of 206 Indians of both the sexes for determining reliability coefficients. Internal consistency reliability coefficients using Kuder-Richardson formula was found to be 0.78 and test-retest reliability coefficient with a gap of 12 weeks on 65 subjects was found to be 0.86.

(ii) Validity

In order to determine validity of the scale, it was correlated with Templer's Death Anxiety Scale and Mc Mordie's Scale on sample of 174 subjects. The correlation with Templer's Death Anxiety Scale was found to be .75 and McMordie's scale .78.

3) Locus of Control

The scale of locus of control is developed by J B Rotter in 1966. Rotter defines locus of control as internal - external locus as an event regarded by some persons as a reward or reinforcement may be differently perceived and reacted to by others. One of the determinants of this reaction is the degree to which the individual perceives that the reward follows from, or is contingent upon, his own behaviour or attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions.. a perception of casual relationship need not all or none but can vary in degree. When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this belief in external control. If the person perceives that the event is contingent upon his own behaviour

or his own behaviour or his own relatively permanent characteristics, we have termed this belief in internal control

(i) Scoring One point is given for each external statement selected. Scores can range from zero (most internal) to 23 (most external).

(ii) Reliability / Homogeneity An internal consistency coefficient (Kuber-Richardson) of .70 was obtained from a sample of 400 college students. For two subgroups of Rotter's (1966) sample test-retest reliability coefficients were computed, with a value of .72 for 60 college students, after a month (for males, $r = .60$, for female, $r = .83$). After two months, an r of .55 was obtained for 117 college students (for males, $r = .49$, for females, $r = .61$). Rotter suggests that part of the decrease after the two month period is due to differences in administration (group vs individual)

(iii) Validity

Convergent Over 50 percent of the internal external locus of control investigations have employed the Rotter scale. The literature does indicate that there are individual differences in perception about one's control over one's destiny and that the Rotter scale is sensitive to these differences.

Discriminant Rotter reports that correlations with the Marlowe-Crowne Social Desirability Scale range from $-.07$ to $-.35$. More recent studies have uncovered higher coefficients (Altrocchi et al, 1968, Feather, 1967, Hjelle, 1971, MacDonald, 1972) -- ranging

from -20 to -.42. Additionally, correlations with Edward's Social Desirability Scales have been found to range between -.23 and -.70. Correlations with measures of intelligence have ranged from .03 to -.22 (Rotter, 1966)

4) Problem Inventory for older people

This inventory was prepared by Dr P.V Ramamurti in 1969. The inventory was prepared by Dr P V Ramamurti in 1969. The inventory measures problems of older people in six areas namely, (i) health, (ii) family and emotional ties, (iii) economic, (iv) religious and social, (v) personality and (vi) personal betterment. The inventory is made up of 30 items. There are 5 items for each of six areas. There are five response categories for each statement. The five response categories are very frequently, frequently, moderately, occasionally and rarely. Very frequently response is given a score of five; frequently is given a score of 4, moderately 3; occasionally 2, and rarely 1. High score indicates more problems for elderly. For each area the scores range from 5 to 25.

- (i) Reliability : The test-retest reliability based on sample of 75 years of age (above 45 years) with an interval of 10 days was found to be 94.
- (ii) Validity : The validity of the items was determined by computing the responses of well adjusted and poorly adjusted groups calculating 't' values. Significant 't' values indicate that the items

differentiate people who are well adjusted and who are poorly adjusted (who have more problems and who have less problems)

5) Loneliness Scale

Loneliness scale is an Indian adaptation of Revised University of California Los Angeles (UCLA) loneliness scale by Dr. Madhu Seth. The test is made up of 20 items which are translated into hindi. There are responses categories namely, "I never feel this way", I rarely feel this way", "I sometimes feel this way", and "I often feel this way " In case of positive statements "I never feel this way" is given a score of 1; "I rarely feel this way" score is 2; "I sometimes feel this way" score of 3 and "I often feel this way" a score of 4. Item number 1, 4, 5, 6, 9, 10, 15, 16, 19 and 20 are negatively worded. The scoring procedure for these items are reversed, i.e. 'never feel this way' is given a score of 4; rarely feel this way' score of 3, sometimes feel this way' score of 2 and 'often feel this way' score of 1. The minimum score on this scale is 20 and maximum score is 80. High score indicates presence of loneliness.

Reliability . The odd even split half reliability was found to be 0.95. The test-retest reliability with a gap of two months was found to be 0.76.

Validity . The validity of the test was found out by comparing the scores of Hindi version with that of original English version. The correlation between these two versions was found to be 0.91. In this way the concurrent validity was established.

Data Collection

Sample - There are about 35 old age homes in Gujarat. Their location and number of elderly population is shown below.

Location	Number of Elderly Population
Rajkot	35
Junagadh	36
Ahmedabad	50
Bharuch	21
Amreli	70
Bhavnagar	156
Jamnagar	60
Junagadh	30
Mehsana	35
Bhuj	40
Kutch	78
Jamnagar	75
Jamnagar	66
Ahmedabad	30
Morbi	21
Patan	96
Palitana	32
Bhachau (Kutch)	76
Rajkot	50
Kheda	30
Sabarkantha	85
Surat	100
Kheda	40
Jamnagar	60
Surat	84
Sola (Ahmedabad)	30

contd . data collection

contd data collection

Location	Number of Elderly Population
Surendranagar	40
Jamnagar	75
Rajkot	28
Baroda	45
Ahmedabad	75
Banaskantha	70
Ahmedabad	195
Morbi	80

In the present study a sample of 200 (100 male and 100 female) elderly people were selected. Their age ranged from 60 to 96 years. Their average age of male elderly was 72 years and female elderly was 69 years. The distribution of sample is shown below.

Table No. 10

	Old Age Home Ahmedabad		Old age home Baroda	
	Male	Female	Male	Female
	80	80	20	20
Total	160		40 = 200	

As age was taken as one of the independent variable to study its effect on the dependent variables, on the basis of median age which was found to be 72 years the subjects were divided into two groups Elderly subject below 72 years of age were considered to be juniors and above 72 years of age were considered as seniors (personal factors) The break up sample in terms of sex, marital status and age is shown in the following table

Table No. 11

	Male		Female	
	Married	Unmarried	Married	Unmarried
Junior	25	25	25	25
Senior	25	25	25	25
Total	100		100	

Similarly the break up sample in terms of caste, rule of residence and educational qualifications (social factors) is shown in the following table.

Table No 12

	Upper Caste		Lower Caste	
	Urban	Rural	Urban	Rural
Below Intermediate	25	25	25	25
Above Intermediate	25	25	25	25
	100		100	

Administration of the Test

Prior to data collection and administration of tests, the investigator approached the administrative authorities of old age homes. She explained the nature and purpose of research. The authorities were convinced and granted permission to visit the homes for elderly for administration of tests and collection of data. In all five tests were personally administered by the investigator. They are (1) Locus of Control, (2) Loneliness, (3) Death Anxiety, (4) Assessment of mental efficiency and (5) Old age problems.

Scoring of the Test

After the data collection scoring was done according to pre-determined keys to obtain individual scores for each of 200 subjects.

Analysis of Data

In order to study the effect of age, marital status, sex, rule of residence, caste and educational qualification, analysis of variance was used. Analysis of variance is useful when there are more than two independent variables. Apart from main effects it also enables to study the interaction of the independent variables on the dependent variables. In the present study, there are six independent variables which for the sake of meaningful study have divided into two broad categories namely, personal factors & social factors. The independent variables falling into personal category are age, marital status and sex while independent variables falling in social category are rule of residence, caste and educational qualifications. Each of the independent variable had two levels. Thus it was 2x2x2 factorial design with eight cells.

The aim of present research was two fold namely -

- (i) To study effect of sex, marital status and age (personal factors) on five dependent variables namely loneliness, locus of control, death anxiety, mental efficiency and old age problems.
- (ii) To study effect of caste, rule of residence and educational qualifications on loneliness, locus of control, death anxiety, mental efficiency and old age problems

The sample consisted of 200 male and female elderly subjects in age range of 60 to 94 years. All the psychological tests were administered personally by the investigator. After the data collection the tests were scored according to keys and individual scores were found out. By applying analysis of variance technique the data was analyzed. The description of results is divided into two parts according to design of research.

The first part deals with analysis of variance wherein the main effect and interaction effect of sex, marital status and age is studied on five dependent variables (personal factors). The second part studies analysis of variance wherein main effect and interaction effect of caste, rule of residence and educational qualifications (social factors).