CHAPTER III

Methodology
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3.1 INTRODUCTION

All program is born of inquiry and this inquiry leads to invention. Research is an intellectual activity, which is directed towards the solution of a problem. It is a systematized effort of gaining new knowledge. The ultimate goal of any research work is to find out the cause and effect relationship between the variables.

Research is a search for knowledge. In other words, the search for knowledge through objective and systematic method of finding a proper and feasible solution to a problem is popularly known as research.

Research according to Redman and Mony is ‘a systematized effort to gain new knowledge’.

John W Best and James V.Kahn (1986) define research as “the systematic and objective analysis and recording of controlled observation that may lead to the development of generalization, principles of theories, resulting in prediction and possibly ultimate control of events”.

In the words of Mc Millan and Schumacher (1984) research is “a systematic process of collecting and analyseing information for some purpose”.

The Advanced Learners Dictionary of Current English lays down the meaning of research as “a careful investigation or inquiry especially through search for new factors in any branch of knowledge”.

The success of an education research depends on the systematic adoption of the scientific methods. Scientific research is systematic, controlled, empirical, a critical
investigation of hypothetical propositions about the presumed relation among natural phenomena. A research process so implemented would enhance the validity and reliability of research.

Research methodology is a way of systematically solve the research problem. Knowledge of the research methodology there fore is essential for all those who either take an active role in the contact of research or desire to keep themselves at least the new development in Education.

The scope of research methodology is wider than that of research methods. According to C.R Kothari “who we talk of research methodology we not only talk of the methods we use in the context of our research study and explain why we are not using others so that research results are capable of being evaluated either by the researcher himself or by others”.

Keeping this in mind, the investigator has explained the particular research method used, tools selected, population and sample, collection of data scoring procedure and statistical techniques used for the study especially through search for new factors in any branch of knowledge.

3.2. RESEARCH METHODS

Research methods may be understood as all those methods/techniques that are used for conduction of research. “Research methods, thus refer to the methods the researchers are in performing research operation”. Researchers use different methods in their research activities. The selection of the research method depends on the nature of the problem, the objectives of the study and population of the study.
Types of Research

There are many ways to classify educational research. Among them, one is on the basis of the goal or purpose of research and the other is on the basis of the way the research is conducted.

(i) On the bases of Goal or Purpose

On the bases of goal or purpose, educational research can be classified as,

(a) Fundamental Research

The research relating to natural phenomenon or pure mathematics or human behaviour is called fundamental research. This type of research is mainly concerned with generalisation and formulation of theory as well. The main aim of such research is finding information from the existing organised body of scientific knowledge that him a broad base of applications. Hence the pure research is helpful in the discovery of new theories and development of existing theories.

(b) Applied Research

Applied research aims of finding a solution for an immediate problem faced by the society or a business organisation. For example a research undertaken to study the causes of Dengue fever in a particular area is applied research. The study conducted to identify the problems of marketing of a particular product is also an example of applied research. Thus the main aim of an applied research is to discover a solution for the existing problem. This type of research has practical utility to the society individuals and business organisation.
(c) Action Research

Action research is focussed on the immediate application, not on the development of theory. It has placed its emphasis on a problem here and now in a logical setting. Its findings are to be evaluated in terms of local applicability not in terms of universal validity. The purpose of action research is to combine the research function with teacher growth in such qualities as objectively skill in research processes, habits of thinking ability to work harmoniously with others and professional spirit.

(ii) On the basis of Methodology

On the basis of Methodology research may be classified as,

(a) Historical Research

It describes what was the process, which involves investigating, recording, analysing and interpreting events of the past for the purpose of discovering generalisations that are helpful in understanding the past and the present and to a limited extent anticipating the future. Hence the researcher is expected to possess much social insight and historical orientation for this purpose.

(b) Survey Research

It describes what is the process, which involves describing recording, analysing and interpreting conditions that exist.

(c) Experimental Research

Greater control over the research environment is the chief characteristic of experimental research. It describes what will be, when certain variable are carefully controlled or manipulated. It involves a laboratory experiment, which is the basic tool
of analysis in the natural and physical science. This type of research is helpful to know the cause and effect relationship under the controlled experiments.

3.3 METHOD ADOPTED IN THE PRESENT STUDY

SURVEY METHOD

Survey is a fact finding study. Under this method of study the researcher is intened in knowing something about the whole population. Survey research is a method for collecting and analysing date obtained from large number of respondents representing a specific population collected through highly structured and detailed questionnaire or interviews. It brings into the focus of our attention of existing educational problems and also suggests ways of meeting them. Survey method given the following informations.

(a) of what exists by studying and analysing important aspect of present situation.

(b) of what we want by clarifying goals and objectives possibly through a study of the candidates existing elsewhere or what experts consider to be desirable.

(c) of how to get through discovering the possible means of achieving the goals on the basis of the experiences of others or the opinions of experts

Significance of Survey

Scientists do not accept this survey research as the research of high order. But the information procured by this method is in great demand to render services because,

(a) It determines the present trends and solves current practical problems.

(b) It secures historical perspective through a series of cross sectional pictures of similar conditions at different times.

(c) It suggests the cause of future development.
(d) It helps fashion many of the tools with which we do research.

(e) It contributes to advancement of knowledge.

(f) It provides the background ideas and data from which many more refined laboratory or controlled studies of caused relations are made.

**Qualities of Research Tools**

Before selecting a tool the researcher shall verify whether the tool has validity, reliability and practicability.

**(i) Validity**

The validity of test may be defined as, the accuracy with which a test measures whatever it is supposed to measure. The efficiency with which a test measures what it attempts to measure. The accuracy with which a test reliably measures what is relevant.

**(ii) Reliability**

"Trust Worthines" is another word used by the common man to signify the term reliability of human beings. Reliability pertains to a class of test characteristics. These are stability, equivalence and internal consistency. The investigator should consider all the above mentioned characteristics of a good research tool while constructing his tool.

**3.4. TOOLS SELECTED FOR THE PRESENT STUDY**

According to S.P.Sukhia(1993) “The instrument employed as a means to gather new factors to explore new fields are called tools”. The tools of research, the instrument that provides for the collection of data upon which hypotheses may be tested.

The data gathering devices that have been used in educational research include questionnaire, schedule, checklist, rating scale, score card, attitude scale, observation,
interview, sociometry, psychological tests and inventories. The evolution of the
different data gathering devices used in educational research helped the investigator to
choose the most suitable one for the present study. He was fully convinced that the
development of a questionnaire would help him in collecting data from the subjects.

3.5 DESCRIPTION OF THE TOOLS

The investigator has used ‘social change Battery’ which was constructed and
standardised by Dr(MS)Rama Tiwary, Dr.Roma Pal and K.M Radha Panday Agra
college, Agra.

The tool has 42 statements and all the statements are positive statements. In this
tool the following factors are included. This helps the respondents to have wider views
towards social change.

(a) Inter-caste migration

(b) Position of woman

(c) Free choice of mate

(d) Family planning

(e) Inter-caste marriage

(f) Social mobility and social change

(g) Child labour and bonded labour

1. Inter caste migration

India’s caste system is perhaps the world’s largest surviving social hierarchy. A
defining feature of Hinduism caste encompasses a complex ordering of social groups
on the basis of ritual purity. A person is considered a member of the caste into which he
or she is born and remains within that caste until death, although the particular ranking
of that caste may vary among regions and over times. Differences on status are traditionally justified by the religious doctrine by one's deeds in previous lifetimes.

Traditional scholarship has described this more than 2000 years old system within the context of the four principal varnas or large caste categories. Despite its constitutional abolition in 1950, the proactive of 'untouchability' the imposition of social disabilities on persons by reason of birth into a particular caste remains very much a part of rural India.

Once upon a time if a person wants to settle another caste it was considered as a sin. But because of the evil practices in the religion and castes people change their attitudes. This changing attitude made the people towards inter caste migration. Today inter caste migration is very common in our country. Hence we should understand that the inter caste migration leads to social change.

2. Position of women

Woman is an important person created by God. But from the beginning itself people are giving less importance to woman. In those days they were considered as slaves. They had no right to do anything. They were not permitted to have education also. They didn't to come into the common place. So they suffered a lot. Their position was very pitiable in this world.

But later in the vedic period less freedom was given to them. Some women got better education. Later Buddhist period again they were not allowed to have education through the monasteries. But later as per the advice of the disciple ‘Anandh’ Buddha changed his attitude and he consented to give education to the women sector and admitted 500 women in the monasteries. During Muslim period also they give more importance to men than women.
During British period women grow in their status. Many ladies became top positions. May ladies went abroad and took their education. After Independence Indian government give much importance to the development of women. They passed many laws for their betterment. Many schemes were put forwarded by the government for their development.

Now-a-days the position of women is growing fast. They are occupying an important positions in our country. Our government announced reservation for women. Women are printing their footsteps in all areas including space also. In our country the first citizen is also a woman. So their position is changed. This change leads to social change.

3. Free choice of mate

Free choice of mate is very essential one in this modern world. Once upon a time it was neglected. Because women were given less importance in the society. Women were considered as slaves. They were not at all given the chance to choose their mates. But during vedic period women were given the choice to choose their mates. In this time the status of women was increasing. But later again this free choice of mate was rejected.

But now-a-days this free choice of mate is prevailing in our society. Sometimes this choice leads to a destructure way. Eventhough it is very essential in our society. Many people opined that it is very essential for our healthy family life. This free choice of mate leads to social change.

4. Family planning

Family planning is very very important in this world. Because today the population of this world is growing very fast. During the past period the families are
having many children. This created over population in the world. This over population created many problems in the world particularly in the society. There was poverty because of this over population. And also it created unemployment in our country. There was scarcity of food and other items only because of this over population.

In our country during the reign of Indra Gandhi the government concentrated on this affairs. They put forwarded the family planning scheme to control the population. Because of this effect many people had done family planning. It is going on in a successful way. By this scheme there is many changes in the society. This leads to social change.

5. Inter caste marriage

Inter caste marriage traditionally called mixed marriage, is marriage between partners professing different castes. Some castes prohibit intercaste marriage, while others allow it, while most restrict it. In inter-caste marriage religion are dominating the major role.

Orthodox Judaism strictly forbids inter caste marriage as well as any sexual intercourse with a member of a different faith. In addition to being prohibited by Jainish law and custom, intermarriage is often criticized by rabbis and other community leaders as demographically harming the Jainish people.

Samaritan men are allowed to marry women outside their community on the condition that the wife should accept the samanitans’ practices. This lies short of conversion and can qualify as inter caste marriage. The decision to allow this level of marriage for being taken in modern times to keep the Samaritan community from dying out of genetic disease.
Islam only allows a man to marry a non-Muslim. In some Muslim countries if a non-Muslim woman is married to a non-Muslim and she converts to Islam, the marriage is suspended until her husband converts to Islam.

Now-a-days marriages are traditionally arranged within one’s own caste. Caste is the qualification sought and how it affects basic socialization of society is a filter secondary potential life partners. Many societies are not accepting inter-caste marriages. But inter-caste marriages are going on and latter on this is accepted by the society. Regarding inter-caste marriage it reveals that the children from this families are very brilliants than other families. So inter-caste marriage is unavoidable and it leads to social change.

6. Social mobility

Social mobility means the movement of an individual in a social structure. In this sense social mobility as such, means the transformation in the social status of an individual or a group. This change in social status is called social mobility. In other words social mobility may be taken as a movement from one social status to another. Here it may be borne in mind that material change is not social mobility, nor physical movements of an individual or group or sections of population. The later are known as migration. In this sense giving from home to college or traveling from one place to another is physical mobility but promotion from the lower post of a lecturer to a higher post of reader or professor is social mobility.

According to P.A. Sorolwin ‘social mobility is either horizontal or vertical. Horizontal mobility is the process of change on the same status level, while vertical mobility is the process of changing from one status to another, either to a higher or
lower level. From this definition we can understand there are two forms of social mobility. They are,

Horizontal social mobility

Vertical social mobility

In society some groups of persons have similar status and some are placed in lower or higher. When transformation of an individual takes place in the groups or sections of same status, we call it horizontal social mobility.

All social groups are not equal in social status. Some are higher and some are lower in social prestige. Achievement of higher status and prestige by an individual or a group of lower status and in the same manner degradation of an individual of group is called vertical mobility means achieving higher to lower or lower to higher social status and prestige.

There are many causes for this social mobility. The first cause is to till the blanks in the social status in a society. Another cause of social mobility is the interchange ability of ranks. Ambitions for higher and higher status and prestige promotes more and more social mobility. Structural factions also play an important part to influence social mobility. This status leads to change in the society. This social mobility leads to social change.

7. Child labour or Bonded labour

Child labour is considered as the evil practice in our society. Each and every child is important for our nation building. But the unfortunate thing is that many of them are under bondage.
Child labours is defined as all economic activity for children under 12 years, any work for those aged 12-14 of sufficient hours per week to undermine their health or education, and all ‘hazardous work’ which could threaten the health of children under 18.

Almost all child labouring occurs in developing countries largely in agriculture but also including domestic service, factory producers and backstreet workshops. Despite a fall of over 10% in the figure since the last assessment in 2000, over 25% of children in sub-Saharan Africa and 18% in Asia remain trapped within the cycle of poverty of which child labour is part.

126 million of these children are engaged in hazardous work, such as mining or handling chemicals which is otherwise described as the ‘worst forms of child labour’. There is an additional category of ‘working children not included in these statistics because the profile of age, nature of work and hours is not regarded as harmful. For example light work of a few hours per week could be regarded as beneficial, child labour by contrast should be eliminated.

Poverty is the seed-bed of child labour. Poor parents send their children to work for reasons of economic expediency, the consequent denial of education setting in motor a mutually reinforcing cycle liable to pass down the generators. The HIV pandemic has regenerated the supply side of the child labour equation. There is evidence that the global fall in child labour is being reversed in African Countries most affected by HIV / AIDS.

Households where adult members suffer prolonged periods frillness suffer dramatic cuts in income and forced sales of assets which are compensated by
withdrawing children from school and sending them to work. This supply of child labour is accommodated by the demand of employers for a cheap and flescrible workforce including small-scale enterprises whose owners exploit their own family members. Girl children are in demand for domestric service, the incrisible nature of which adds to their vulenarbility to ex-ploitation and abuse.

In 1989 the UN general assembly adopted the convention on the rights of the child within which attitude 32 assets the right that children should not be engaged in work deemed to be hazourdous or to interfere with the child’s education, or to be termful to the child’s health. Our government is also taking steps to avoid this child labour. Now-the attitude is changing day by day. Many children are going to school. This leads to social change.

This tool has five point scale namely, Totally agree, agree, undecided, disagree and totally disagree.

3.6. ESTABLISHING VALIDITY OF THE TOOL

The prepared tool was given to the guide, the experts in the field. Taking in to account their responses and opinions the investigator established the content validity of the tool and also the total is relevant to the present context.

3.7. ESTABLISHING RELIABILITY OF THE TOOL

Data were collected with the tool at an interval of one week to the B.Ed students of different colleges in Kanyakumari District. The data were analysed by means of correlation co-efficient. Thus the reliability of the tool was established.

3.8. POPULATION AND SAMPLE

According to John W.Best and James V.Khan (1986), “A Population is any group of individuals that have one or more characteristics in common that are of
interest to the researcher”. In other words the aggregate or totality of objects or individuals regarding which conclusions are to be drawn is known as population.

The population selected for the present study consists of the B.Ed students studying in the aided and self financed colleges in Kanyakumari District.

3.9.SAMPLE OF THE STUDY

According to John. W. Best and James V Khar(1986), “A sample is a small portion of a population selected for observation and analysis”. In other words, a sample is that part of the universe which we select for the purpose of investigation. Here the investigation is done through 100 B.Ed students from Sree Rama Krishna College of Education Kulasekharam,100 B.Ed students from N.V.K.S.D College of Education, Attoor and 100 B.Ed students from Ruben College of Education, Thadikkarankonam in Kanyakumari District.

**TABLE-3.1**

**SAMPLE SELECT FOR THE STUDY**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the College</th>
<th>No. of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sree Ramakrishna College of Education</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>N.V.K.S.D. College of Education</td>
<td>100</td>
</tr>
<tr>
<td>3.</td>
<td>Ruben College of Education</td>
<td>100</td>
</tr>
</tbody>
</table>

3.10.COLLECTION OF DATA

The investigator after preparing his research tool, approached the heads of the institution mentioned in table 3.1. After getting permission the tool was distributed to the student teachers and collected back, after they had finished their work.
3.11. SCORING PROCEDURE

For favorable statements the scoring was done in the following manner

TABLE-3.2

SCORING PROCEDURE

<table>
<thead>
<tr>
<th>Statements</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nos. 1 to 42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Totally Agree</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

In this way the scoring procedure is done.

3.12 STATISTICAL TECHNIQUES USED

Statistics is the body of mathematical techniques or processes for gathering, describing, organizing and interpreting numerical data. Since research yields such quantitative data, statistics is a basic tool of measurement. Therefore for the purpose of the study the investigator used the following statistical techniques for analyzing the data. They are (i) mean (ii) standard deviation (iii) percentage analysis (iv) ‘t’ test (v) ANOVA

1. Mean

\[
\text{Mean} = \frac{\Sigma x}{N}
\]

Where \( x \) = scores of the distribution

\( N = \) number of scores

\( \Sigma = \) The symbol of summation
(ii) Standard deviation

\[ \sigma = C \sqrt{\frac{\Sigma fd^2}{N} - \left( \frac{\Sigma fd}{N} \right)^2} \]

Where \( \sigma \) = standard deviation

\( C \) = Class interval

\( F \) = frequency

\( d \) = deviation from the mean

\( N \) = Total frequency

(iii) t-test

'\( t \)' test is used to find out the significance of difference between the means of different variables for different subgroups.

\[ t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}} \]

Where \( M_1 \) = mean of the first group

\( M_2 \) = Mean of the second group

\( N_1 \) = Size of the first group

\( N_2 \) = Size of the second group

\( \sigma_1 \) = Standard deviation of the first group

\( \sigma_2 \) = Standard deviation of the second group

Hence the investigator has fixed 5% is used to find out whether there are any significant difference among more than two sets of variables.
The ‘F’ ratio is computed

\[ F = \frac{V_b}{V_w} \]

Fb Between group variance
F = ..................................................
Vw Within group variance

If the between groups variance is not substantially greater than the within groups variance it can be concluded that the difference between means is not significant, if the F ratio is substantially greater than one, then the difference is significant.