

HISTORICAL RESEARCH

Historical method in education has been in use in the past to a greater extent than any other method of research, during the development of educational research. Historical method of research is also called the documentary research as it makes use of historical documents and other records. It relates to the historical technique of research where historical records, documents and relics are made use of in dealing with problems on hand recounting some aspects of past life and critical research for truth is made in the light of past events. Historical research may be defined as the study of problems of education making use of historical source and techniques in order to evolve universal generalization and principles.

Historical research is the application of scientific method of inquiry to historical problems. It demands standards of careful methodology and spirit comparable to those which characterize other types of research. Although everyone is a historian in that, he remembers what occurred in the past, such history does not meet the criteria of historical research. It is to be a science and it must achieve some standards of excellence as other forms of research.

Purpose and values of historical research.

1. The foremost purpose is to gain a clear perspective of the past and the present. The present problems are understandable only on the basis of past.
2. It provides us with a greater appreciation of the culture and of the role which education is to play in the progress of society.
3. This study provides important information concerning the effects of certain past educational practices and may suggest programmes for future action, based upon the evaluation of the past experiences.
4. It helps avoiding making mistakes of the past.
5. Such approach makes it easier to recognise and identify significant factors in the existing complex situation.
6. It enables us to understand the dynamics of educational change.
7. It develops understanding of the deep-rooted causes of the present day educational problems.
8. It develops our ability to locate, analyse and appraise historical evidence and to understand the limitations of this evidence.
9. It helps remove educational prejudice, misconceptions of facts.
10. It is a necessary foundation for any educational reform.
11. It enlightens us as to how the functions and roles of social institutions have shifted from time to time.
12. It inspires respect for sound scholarship and reverence for great teachers. Moreover the history of education seeks to answer three important questions, i.e., the question of evaluation, the question of resemblance and the question of value.

Types of historical research.

1. **Bibliographic research.** It aims at determining and presenting truthfully the important facts about the life, character and achievements of important educators.
2. **Legal research.** It aims to study the legal basis of educational institutions run by the different religions and castes, relation between central and state governments with regards to education, legal status of teachers and students, administration of private aided schools, school finance, participation of students in the administration of universities etc.
3. **Studying the history of ideas.** It involves the tracing of major philosophical or scientific thoughts from their origins through their different stages of development.
4. **Studying the history of institutions and organizations.** Studying the history of some prominent schools, universities and other educational institutions also provide numerous problems for significant historical research.

Steps in historical research.

1. **Selecting the problem.** The investigator should have a clear mind about problem. The problem should be significant. It should be one which can be solved through research. He should formulate it in simple terms. If the problem is very vast, it should be delimited. He should have familiarity with previous research in the field. He should see that duplicity does not take place.

- 2. Formulation of hypothesis.** The hypothesis that the researcher constructs for historical research are useful in explaining events, conditions or phenomena of the historical period in question.
- 3. Collection of data.** As compared to other method, collection of data in this method is difficult. Historical data has to be inclusive. It will create a lot of confusion. So researcher has to be on guard against it. He has to propose a number of headings into which the data may be classified. The efforts of the historian in the collection of data are seriously handicapped because of many difficulties.
1. He has not lived at the time and is thus removed from the events that he investigates. Therefore he must draw his data from the experiences and observations of others.
 2. The recorded experiences are available in their exaggerated form and are full of superfluous details.
 3. The recorded experiences may be written form and out-dated point of view and do not suit present day requirements.
 4. The records which have been destroyed cannot be created over again. The available records are incomplete and otherwise defective in several ways.
 5. The historical data are not comparable to the materials of the physical sciences. They have to be reconstructed in many cases from unverifiable source.

Sources of history. Good has classified 2 sources of history, i.e., documents and remains of relics. In documents we do not see events ourselves but in remains the event is before us.

The following is the list of documents:

- | | |
|--|--|
| 1. Legislative acts such as laws etc | 2. Court decisions. |
| 3. Reports of committee. | 4. Proceedings of officers like NCERT. |
| 5. Reports of commissions like Kothari Commission. | 6. Newspapers and periodicals. |
| 7. Autobiographies, letters, novels etc. | |

Following is the list of remains:

1. School buildings, furniture etc.
2. Photographs of teachers, children and parents.
3. Forms of certificates, attendance sheets etc.
4. Textbooks, exercise books etc.

Primary and secondary sources: Historical sources are of 2 kinds:

- a. Primary sources.** Primary sources are the original sources; the first witness to a fact. Primary sources have been kept unconsciously or consciously. Tools, weapons, clothing, building, painting, coins etc are the examples of primary sources unconsciously kept. Autobiographies, letters, diaries etc are consciously kept for information.
- b. Secondary source.** Secondary sources are the reports of the persons who reported the testimony of an actual witness. The writer of the secondary source was not on the scene of the event. Secondary sources are not trusted completely, but they serve some useful purpose.

Historical criticism. The historians does not often use the methods of direct observation since he gets much of his data from the reports of those who witnessed or participated in these events, the data is subject to historical criticism. It consists of 2 parts as under:

- a. External criticism.** Through external criticism, the historian checks the validity of the document and determine whether it is admissible as an evidence. For this purpose, he asks many questions.

1. Why was the document produced?	2. When was the document produced?
3. Who was the author of the document?	4. Is the language author's? etc
- b. Internal criticism.** After external criticism, the historian tries to find out the accuracy or worth of the document. Following questions come to his mind:
 1. Was the writer competent, unbiased, honest and actually acquainted with the fact?
 2. Was he subject to fear, pressure or vanity?
 3. How long after the event did he make a record of his testimony I was he able to remember what happened actually?

4. Is the witness in agreement with other competent witness?

Internal criticism can be of positive nature or negative nature. When we attempt to seek the true and real meaning of the text, it is called positive criticism. When we attempt to seek every possible reason for disbelieving the statement, it is called negative criticism.

5. Interpretation of data. The interpretation of data is complicated in historical research. Since history is actually a record of the chain of related events, it becomes very difficult for a researcher to interpret that one event in the chain was caused by the previous event in the chain. Here determining cause and effect relationship too is a difficult job. The researcher must be cautious in his use of analogy in the interpretation of data. While drawing comparison between one historical event and any number of others, he must carefully make use of similarities as well as of differences.

6. Writing of research report. In historical method due consideration must be given to the historical perspective and future perspective. The reporting of historical research should imbibe the good qualities of historical narrative. Sufficient care should be taken in the selection and organization of the material to be presented. There are different methods of organising historical research material. The following types are but suggestions:

- | | |
|-----------------------|----------------------|
| a. The chronological. | b. The topical. |
| c. The thematic. | d. The foundational. |

The method of organisation of material depends on the nature of data gathered and efficient and effective report, however, depends on the integrity and scholastic ability of the researcher. The style of writing research report should be lucid, simple, objective, designed scholarly and intelligible for the report to be effective. It should reflect historical accuracy, possess historical authenticity and should be based on historical evidence obtained.

END...

DESCRIPTIVE METHOD

Of all the research methods, descriptive method is most widely used. It is known by various names, i.e., status studies, survey research and normative-survey type. The descriptive method of educational research may be defined as that method of investigation of educational problem which attempts to describe and interpret the presently existing conditions, practices, beliefs, attitudes, trends, processes and effects of educational phenomena that are typical of the normal conditions.

Characteristics. The following are some of the characteristics of descriptive method of research:

1. It involves the gathering of data from a large group.
2. It deals mainly with what exists at present.
3. It is concerned chiefly with the general population rather than with the individuals.
4. It includes description of events or establishing of relationships among events.
5. It covers physical, behavioural and attitudinal aspects of individuals or abilities of pupils.
6. It serves as a kind of exploration of the field of study.
7. A survey may be general or specific. It may be purely utilitarian in nature or may have academic importance aimed at verification of some established theory or any of its corollaries.

Sub-divisions. The descriptive type of educational research has the following sub-divisions:

1	Factual surveys	9	Trend studies	17	Appraisal surveys
2	Status studies	10	Social surveys	18	School plant surveys
3	Opinion studies	11	Current practice surveys	19	Documentary frequency surveys
4	Case studies	12	Educational surveys	20	Text book studies
5	Community studies	13	Attitude surveys	21	School record studies
6	Comparative studies	14	Financial studies	22	Follow-up studies
7	Evaluation Studies	15	School system studies	23	Sample surveys
8	Critical studies	16	Curriculum studies	24	Testing surveys etc

Procedure/steps of descriptive method. The procedure of descriptive method is as following:

1. **Selection of problem.** The first step involves the selection of a suitable problem, for investigation. The problem should be of somewhat immediate concern to the educational and school administration. The needs of the society and those of schools should be taken into consideration. The survey research is more or less an institutional research rather than individual research. Hence it is to be decided in consultation with the administrators of schools, educational administrators, teachers and the public-men interested in education. After locating the problem, it should be clearly defined and formulated. It is also to be decided whether survey would be longitudinal or cross-sectional or both.
2. **Collection of data.** The data in educational surveys and status studies are collected by utilizing various tools of investigation. The tools of investigation generally used are questionnaires, optionnaires, attitude scales, schedules, interviews, case-study techniques, rating scales, observational technique and the like.
3. **Evaluation criteria.** Usefulness for the improvement of school practice becomes an important criterion for evaluating the descriptive method. It should serve as a functional basis for enabling the administrators to make important decisions.
4. **Analysis of data.** The data gathered through the administration of the tools of investigation or measurement are to be analysed. Analysis of data permits researcher to identify the critical aspect of the problem under investigation and provide basis for a clear-cut description and meaningful classification.
5. **Interpretation of data.** The data are to be subjected to interpretation on the basis of analysis. Interpretation can be done in the following ways:
 - a. **Personal interpretation.** It is subjective.
 - b. **Factual interpretation.** This is scientific and objective and is based on facts obtained through the different tools of investigation.

- c. Comparative interpretation.** This is also scientific and objective. The data are compared with other external criteria or internally with the responses given on different parts of the same tool.
- 6. Reporting of descriptive research.** It includes six steps in the organisation of the matter:
- a. Introduction.** Introducing the topic under investigation, its need, importance and rationale, method of study, tools of research used, review of related research, organisation of the study.
 - b. Background of the problem.** In the second part, the background of the problem is to be explained in detail.
 - c. Elaboration of the problem.** The problem under investigation will be elaborated in its varied aspects in the third part of the report.
 - d. Description of tools, analysis and interpretation.** The 4th part refers to survey. It gives the detailed description of the tools of research, collection of data, analysis of responses, interpretation of data, etc.
 - e. Review and recommendations.** Finally the principal findings are enumerated and relevant recommendations are given.
 - f. Appendices.** In the end, the bibliography, the tools of investigation used, list of related investigation and problem areas for future research are given under appendices.

Uses/purpose of surveys.

1. Educational surveys are particularly practical, especially for the administrators because they identify present conditions and point to present needs. May be they cannot make the decision for the administrator but they can provide him with information on which to base sound decision. They provide, therefore, the basis for decisions of improvement.
2. It serves as a stepping stone to more precise investigation.
3. Its purpose is both immediate and long range.
4. It secures historical perspective through a series of cross sectional pictures of similar conditions at different times.
5. It suggests the course of future developments. It gives pertinent data to the persons who are engaged in planning for the future.
6. It contributes to the advancement of knowledge in many ways, e.g., by studying children of different ages we can obtain some picture of the trend of child development.

END...

EXPERIMENTAL METHOD

Experimental research is the name given to the type of educational research in which the investigator controls the educative factors to which a child or a group of children is subjected during the period of inquiry and observes the resulting achievements. According to John W. Best, experimental research is the description of analysis of what will be or what will occur under carefully controlled conditions. It is the classical methodology of the science laboratory. It is the most exciting of all methods of research. It has the greater utility in laboratory, and it can also be applied with same success in the school classrooms. Experimental research is based on a simple principle. If two situations are alike in every respect and one element is added to or removed from one but not the other, any difference that develops is the result of the operation of element added or removed.

Procedure/steps of experimental research. A number of steps are needed for conducting experimental research. The major steps are given below:

1. **Choosing a problem.** The first step is to choose a problem. The problem should be an important one. It should be such as can be solved by experimental research.
2. **Survey of related literature.** We have to make a survey of related literature so that our perception about the problem becomes clear.
3. **Statement of the problem.** The problem is to be stated clearly. The important words are explained.
4. **Forming hypothesis.** We have to form the hypothesis. Hypothesis is an intelligent guess. Suppose our hypothesis is "Punishment is necessary for learning".
5. **Finding out variables.** We have to find out the independent variables and dependent variables. Independent variable is that variable which is the cause and the dependent variable is that variable which is the effect. In our hypothesis shown above, punishment is independent variable and learning is dependent variable.
6. **Administering independent variables.** Independent variable is to be administered according to needs of the experiment.
7. **Collection of data.** The data are collected after the test is given.
8. **Analysis and interpretation.** The data are analysed. They are put in different categories. They are also interpreted. Without interpretation data are meaningless.
9. **Acceptance or rejection of hypothesis.** On the basis of results, we either accept the hypothesis or reject it. sometimes we partly accept and sometimes we partly reject the hypothesis.
10. **Generalization.** Lastly we make generalization.

Experimental design. In experimental research various designs are used. The main ones are the following:

1. **Single group design.** This type of experimentation is carried on with one group of individuals. The same group is used throughout the experiment. The process is as under:
 - (I)
 1. Pretesting the group.
 2. Teaching a unit of work by a conventional method.
 3. Final testing.
 - (II)
 1. Pretesting the group.
 2. Teaching different unit of work by a different method.
 3. Final testing.

The gain of two situations is compared and results drawn.
2. **Parallel group design.** This is more complex than the one group experiment. The two groups should be equivalent in all respects. One of the groups should be put as control group and other should be treated as experimental group. Experimental factors are to be applied to the experimental group and not to the control group. The difference will be because of experimental factors.
3. **Relation group design.** This design involves rotating the order of groups or of procedures. It can be applied to the single group or parallel groups or more than two groups. When we apply it to the single group, we have to change the time sequence of control factor and experimental

factor. Cycle first would apply the control factor first and then experimental factor. Cycle II would apply experimental factor first, then control factor. When we apply it to the parallel groups, the design becomes as under:

Let A and B are two groups, x be the experimental factor, y be the control factor, R be the result.

Cycle I	A – x – R B – y – R ₁	}	R + R ₃ is the result of x R ₁ + R ₂ is the result of y
Cycle II	A – y – R ₂ B – x – R ₃		The results are compared and conclusions drawn.

When applied to more than two groups, it will take the following shape:

Cycle I	A – x – R B – y – R ₁ C – z – R ₂	}	R + R ₅ + R ₇ is the result of x R ₁ + R ₃ + R ₈ is the result of y R ₂ + R ₄ + R ₆ is the result of z	
Cycle II	A – y – R ₃ B – z – R ₄ C – x – R ₅		}	The difference between the above 3 results are attributable to the differences between x, y, & z. In this was, we can say which of the 3 is the best.
Cycle III	A – z – R ₆ B – x – R ₇ C – y – R ₈			

Uses.

1. It is valid and reliable as compared to other methods.
2. The procedures can be repeated and results verified.
3. It gives exact results as compared top other methods.
4. It is systematic.
5. It has given education the status of science.

Disuses.

1. In experimental research we are dealing with human beings. It is unlikely that all variables can be controlled. So our findings are not exact.
2. Experiments have to be conducted on a trust. We trust that variables not controlled are irrelevant and insignificant for the purposes of study. We satisfy our inner desires to save ourselves from trouble.
3. Unlike physical sciences, we do not have valid and reliable instruments. Our scale does not include zero point. So our instruments do not give us a real measurement. At best we can call it assessment.
4. Experiments cannot be conducted on all problems that we face. So experimental has its own limitations.
5. We cannot conduct research on human beings in the same way as on pigs. Morality dies not allow us to conduct experiment like effect of fatigue, torture etc on human children. There is a cry “No experimentation with children”.

END...