"Comparative study of Education is the systematic examination of cultures and in particular, their systems of education in order to discover resemblances and differences."

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2. Previous Researches.

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After discussing the problem and procedure, its definition, scope, delimitation, the reasons for selecting U.K. and U.S.A. for the present study and the method adopted for this purpose in the previous chapter, the investigator would discuss the landmarks in the comparative education under the title 'review of related literature' and would like to present the previous researches in the field of 'teacher education' in the present chapter.

1. Review of Related Literature

In this section of this chapter, the investigator would discuss the literature regarding the comparative method of education. He will present the need of comparative method of education and the phases of the same method under the title 'introduction', while, he will discuss the contributions of Isaac Kandel and his followers who have studied comparative education through historical and cultural traditions and George Bereday and others attempted comparative education from the scientific point of view under the title landmarks in the comparative education.

A. Introduction:

One may not find in the history of education that any one has taken deeper interest in and attached greater
significance to the study of comparative education than the recent time. Very few topics of educational discussions take up more time and acquire more space in educational journals than that of comparative education. This awakening in the comparative education is due to the growing concern over steadily increasing problems and situations of education, its flux, organization and administration almost everywhere in the world. Governments, administrators, politicians, sociologists, economists, educationists and parents, all at a time, look at education of children for the happy solution of their problems. The most pressing problem that draw their attention constantly is, "What type of education will help their children adjust in the future society and how?"

Philip E. Jones has rightly said,

"... education has become an indispensable process in modern life. Small wonder, then, that as students, teachers, parents or administrators, we often show interest in how schools in other countries function and in how other nations solve their educational problems. Sometimes, we ask whether their experiences can help us answer our own by no means insignificant educational questions. At once, such comparison arises from sheer curiosity (we want to know how other people educate their young), and hard practicality (we want to know how other people solve certain problems which we think may be similar
It has rightly been pointed out by Phillip E. Jones that comparison arises from sheer curiosity to know how other people educate their children followed by practicality, i.e., how the other people solve the pertinent problems like the one which the country is facing. Thus, comparison takes place and gives birth to comparative education which is considered of vital importance and of deep interest to all mankind today.

From the point of view of the method, comparative education has passed through two phases and is entering upon the third phase of its history. First phase, from the nineteenth century — from Mark-Antonie Jullien of Paris to Horace Mann of U.S.A. The second phase occupied the first half of the twentieth century — from Sir Michael Sadler to Rossello of Switzerland, while the third phase with George Z.F. Bereday.

About the first phase, G.Z.F. Bereday has said,

"This phase might be called the period of 'borrowing'. Its emphasis was on cataloguing descriptive educational data; comparison of the collected information was then undertaken in order to make available the best practices of one country for transplantation to others."2

It has been said here, that the first phase in the comparative method is the phase of 'borrowing'. In this phase, it has been emphasized that comparison has been done with a view to finding out the best practices of one country. These best practices of one country could be transplanted to other countries. What was the method used for purposes of finding out the best practices? In this phase, emphasis was on classifying descriptive educational data. So in this phase, borrowing of good system was predominant.

The second phase is called as 'prediction'. Regarding this phase, G.Z.F. Bereday has said,

"This era might be called the period of 'prediction', because the purpose of comparative study was now not primarily borrowing but predicting the likely success of a system of education in one country on the basis of the observation of precedents and similar experiences of other countries."  

He has given reasons why the second phase is known as the period of 'prediction'. According to him, the purpose of comparative study in this phase is not to borrow but to predict the likely success of education in one country on the basis of past experiences. In this phase, it was

3. Ibid., p.8
believed that educational system cannot be detached from the society. These views are seen in the writing of Sir Michael Sadler. He has said, "In studying foreign systems of education, we should not forget that the things outside the schools matter even more than the things inside the schools, and govern and interpret the things inside." He has rightly advised the research workers in the area of comparative education, in this phase, that they should not consider only the internal features of the educational system i.e. what is going on in the class-room. The educational system is influenced by the culture, economic condition and political ideology of the nation. That is, while studying the foreign system of education, one has to study the internal as well as external features of a nation. A national system of education is a living phenomenon.

In the third phase, there has been a search for scientific methodology for comparative education.

With this introduction, the investigator would discuss the landmarks in comparative education. In the

landmarks in comparative education, he would discuss the contributions of Isaac Kandel, Nicholas Hans, Vernon Mallinson, Joseph Lauwerys and Arthur Moehlman who have attempted to study comparative education through historical and cultural traditions. and George Bereday, Brian Holmes, Karl Popper, Edmund King and J.M. Higson who have attempted for the search for a scientific methodology.

B. Landmarks in Comparative Education:

The term landmark reveals that in the history of comparative education, there are some persons whose contributions to the study of comparative education cannot be neglected. These persons have given the new dimension to the comparative method and evolved a new method which has its roots in the historical method of research. It has already been seen earlier that the comparative method is in the third phase now. The comparative method has travelled from the phase of 'borrowing' to the phase of 'prediction' and from the phase of 'prediction' to the phrase of 'analysis'. So one would ask a question: Who are the people who have given new dimension to the comparative method? Or in other words, who are the contributors to the study of comparative education? The investigator would discuss the contributions of Isaac Kandel, Nicholas Hans, Vernon Mallinson, Joseph Lauwerys
and Arthur Moehlman who contributed to the study of comparative education by understanding the same through historical and cultural traditions.

B.(i) Understanding through Historical and Cultural Traditions:

Sir Michael Sadler was the pioneer of this approach to the study of comparative education. He has written in one of his reports,

"The chief work of an educational intelligence office ...... is to collect, summarize and publish various kind of educational experience with a view to (1) getting what is sound and true from a number of discrepant opinions; (2) informing the nation how it stands in regard to educational efficiency as compared with other nations; and (3) promoting as far as possible, general consent and agreement as to the nicest and most fruitful line of development in national education ... The publication of one-sided or ex-parte educational information would be mischievous."

It could be seen here that it was thought better not to transplant the best educational system of the other country in one's own country. Instead, Sir Michael Sadler has suggested to inform the nation where it stands in regard to educational efficiency as compared with other nations. It can be inferred from this that

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a new dimension to the study of comparative education was given. It has already been seen earlier that Michael Sadler believed that what is happening inside the schools has the profound influence of what is happening outside the school. That is, the influence of the society cannot be lost sight of while studying the educational system of the other country. Education has its roots in the culture and history of a nation. So, while studying the educational system of a nation, its history and culture could also be studied. The educational system and the society are intricately connected and one cannot detach these two. His views were carried forward by Isaac Kandel and others.

B. (i) a) Isaac Kandel:

The best known name in comparative education is that of I.L. Kandel. He is still regarded by comparative educationists as an authority in this field. His authority can be understood from the frequency with which later authors rely upon him. Many of their statements commence with either "As Kandel has pointed out ...." or "According to Kandel...." This will lead someone to ask: What is his contribution to the comparative education?

Kandel believed that comparative education would be
meaningless, if the attempt has not been made to discover the meaning of nationalism. This meaning of nationalism furnishes the basis of educational system. Therefore, he looked at the cultures he studied from an historical point of view and, from this view, tried to determine the national character of each. In this connection, it would be worthwhile to see his views. He has said, "It is important, therefore, as a means of appreciating and understanding the significance of a national system of education to consider the bearing of a nation's character upon its education." He has rightly said that any one who intends to understand the significance of a national system of education has to consider the bearing of a nation's character upon its education. In other words, he has pointed out that an educational system of a nation is predominantly influenced by the character of a nation.

It can be seen from Kandel's work that he was concerned with finding out differences between societies and, hence, between their educational provision. Kandel studied national systems with a view to finding out similarities and contrasts. In one of his books he

IS wrote,

"That practices, devices, methods, organization, all the detailed aspects which go to make up an educational system cannot be transferred intact from one environment to another, has been amply proved both in the past and present. This fact, however, illustrates only the wrong use of comparative education and emphasizes the importance of adaptation as against assimilation in education. Comparative education has an entirely different function, particularly, at the present time when so many of the problems of education are almost universally identical."

It can be inferred from the quotation that it is not possible to transfer practices, devices, methods, organization and all other aspects that go with educational system intact from one country to the other. One may find the nomenclature of problems might well be the same, but their nature in particular places and the interpretation of terms in which they are couched, might very well differ.

Phillip E. Jones has said,

"But Kandel's interpretation was much conditioned by his whole approach to the comparison of education systems ..... Kandle firmly believed that a comparison of differences between systems, related to the varied solution of problems, would lay bare the necessity for an appreciation of forces - obvious or intangible, physical or spiritual, cultural or economic - which under

7. Ibid., p. xvii
It has been pointed out here that Kandel's interpretation was conditioned by his approach to the comparison of educational systems. How did he compare the systems? For this purpose, he studied the external and internal forces, physical or spiritual, cultural or economic forces that influence any educational system. In other words, one should take into consideration the national background when he wants to compare the educational systems.

In Kandel's methodology, there are three main purposes. The first purpose is the 'repertorial-descriptive', the second is 'historical-functional', while the third is a 'melioristic' purpose. Kazamias and Massialas state that,

"the first aim was basic to Kandel's approach, for one must have facts before making judgements or drawing comparisons. As the report of facts is not sufficient, one must look for causes. While, the third purpose led Kandel to assume a certain body of values."


It can be seen here that the first aim 'repertoriat descriptive' was basic to Kandel's approach, because one must gather facts before passing on judgements or drawing comparisons. While, the second aim emphasizes that merely gathering of facts is not sufficient. One must look for causes. So, the second purpose was, 'historical-functional'. But, the third purpose in Kandel's methodology demands that one must assume a certain body of values e.g. centralization of powers is bad, democratic systems are better and so on. In short, the three elements in the method of Kandel are

* Repertorial - descriptive
* Historical - functional
and * Melioristic

On the purpose of comparative education, Kandel has said,

"The methodology of comparative education is determined by the purpose that the study is to fulfill. If the aim is to learn something about an educational system, a description without explanation would be sufficient.... If the discipline is worth pursuing, it is essential that the student search into the educational system or systems that he is studying. His task is to learn what forces determine the character of a system, what accounts for differences or similarities between two or more systems, how one system proceeds to solve problems that it has in common with other systems, and so on. He will not find answers to these and many other questions from information about the fabric of the system that he
It can be understood from this that

* the methodology of comparative education is dependent upon the purpose of the study.

* If the aim is to learn something, a description without explanation would be sufficient.

* If the discipline is worth pursuing, the task is to learn what forces determine the character of a system.

With regard to the comparative method of education, Nicholas Hans does not fall in tune with the approach recommended by Kandel but he believes that education is affected by some factors. What are these determinant factors? The same discussion follows in the succeeding lines.

**E. (i)(b) Nicholas Hans:**

In Kandel's tradition, Nicholas Hans was an eminent comparative educationist. In his famous book, titled Comparative Education, he has written,

"The present writer's contributions to the

Year Book of Education: 'Comparative Study of European Education' (1936), and 'Comparative Study of Education in Latin America and Countries of Islam' (1937) emphasised still more the historical approach and dealt with education in each country as the result of cultural and national background. The next study, 'Educational Traditions in the English Speaking Countries' (1938), by its very title laid stress on a historical approach."

It can be seen from the quotation that Nicholas Hans emphasized the historical approach in his studies and writings. He has dealt with education in the countries he studied as the result of cultural and national background. In other words, if anyone wants to study an education system of a country, he should study it keeping in mind the cultural and national background of the same nation.

Hans has clearly shown his concern for factors of development in the same book 'Comparative Education: A Study of Educational Factors and Traditions'. He considered two essential steps in comparative study. These two steps are,

"The first step is to study each national system separately in its historical setting and its close connection with the development of national character and culture. The second step would be

to collect data on existing systems of education in various countries. This task includes statistics on all aspects of educational administration, organisation and also tests of intelligence and achievements.\textsuperscript{12}

According to Hans, the two necessary steps in the study of comparative education are:

* Study of each national system separately in its historical setting together with national character and culture; and

* Collection of data on existing systems of education.

For a valid comparison, only the study of a nation's historical development and its functional role in the social life of a particular nation can give a true insight into its values. About the collection of statistical data, he has advised the research workers that,

"Statistical comparison are valid only when they deal with commensurable units and internationally equivalent terms. For instance, the comparison of costs per pupil in different countries without going into lengthy explanations of economic structure, standards of living, rates of exchange, national traditions, as well as statistical methods, is not only valueless, but often misleading."\textsuperscript{13}

\textsuperscript{12} Ibid., p.7
\textsuperscript{13} Ibid., p.8
It can be seen that statistical comparisons are valid only when they are compared in internationally equivalent terms. He has given an example of comparison of costs per pupil in different countries. The costs per pupil are depending upon many factors such as the prosperity of the nation, standards of living etc.

He has enumerated five factors which make an ideal nation. These five factors are (i) Unity of race, (ii) Unity of religion, (iii) Unity of language, (iv) Compact territory and (v) Political Sovereignty.

He has referred to the national development. He firmly believed that revolutions do not change the national character, that whatever exists today is the result of the past. Then, one would ask a question: What is a national character? According to Niholas Hans,

"National character is a complex result of racial inter mixtures, linguistic adaptations, religious movements and historical and geographical situations in general. Because of this multiplicity of factors, it could not be compared to a monolith, but rather resembles an old architectural with styles and additions of various centuries." 14

He has pointed out that national character is a complex

14. Ibid., p.10
Finally, he arrived at the classification of three definite groups of factors influencing educational development in the countries he studied. They are (i) Natural factors, (ii) Religious factors and (iii) Secular factors. What are to be included in these factors? Race, language and environment are included in the natural factors. While Catholicism, Anglicanism and Puritanism are to be included in Religious factors. Humanism, Socialism and Nationalism are to be treated as Secular factors.

The discussion about the contribution of Nicholas Hans will lead the investigator to present the contribution of Vernon Mallinson.

E.(i)(c) Vernon Mallinson:

Vernon Mallinson emphasized 'national character' in the study of comparative education. In this way, his approach is somewhat akin to that of Hans. It would be worthwhile to understand the meaning of national character.

Mallinson believes that 'national character' determines the kind of education a country enjoys. What is the aim of education? Mallinson argues that the aim of education is to be the making of "a citizen of"
democracy", but, this concept varies from country to country. As a result, every country, in educating for democracy, interprets as it wills and builds a national character.

Mallinson quotes Morris Ginsberg to define the national character. National character can best be described as meaning, "the totality of dispositions to thought, feeling and behaviour peculiar to and widespread in a certain people, and manifested with greater or less continuity in a succession of generations." It can be understood that national character is manifested with greater or less continuity in a succession of generations. In other words, the national character cannot be uprooted by any one within a short span of time. The National Character takes years to shape its individuality. It is concerned with the establishment and maintenance of relatively permanent attitudes which become group sentiment on a large scale, but the same has chances of modification with increasing maturity over lengthy periods of time. He emphasizes the character development of a people and not the intelligence. This is evident from his writing. He has said,

"It is the character of a people and not its

intelligence that determines its future. And, it is from a people's character, and from its intelligence, that stem its political constitution, its ideals and aspirations, its social and cultural outlook."16

In other words, he argues that it is from a people's character that their political structure, ideals, goals, social fabric, and cultural outlook come.

What are the forces that shape and determine the national character? He has listed four principal factors: heredity, natural environment, social heritage, and education. Mallinson sees the possibility of slow changes in national character and outlook by a number of means. They are:

"(1) Competition from more progressive groups - the struggle for survival; (2) scientific progress and discovery; (3) the gradual spreading and acceptance of new beliefs that eventually result in a new outlook and (4) education, which .... has only an indirect influence in that, it acts on the intellectual quality of the group rather than directly on its character."17

He has given four factors that change the national character. They are

* Struggle for survival

* Scientific inventions

16. Ibid., pp.4-5
17. Ibid., p.28
One should always remember that the national character of a given group is never determined by one factor alone, but by combination and interweaving all the factors. He has shown the factors such as (1) geographical and economic factors, (2) the historical factor, (3) the religious factor, and the (4) political factor. Here, one can remember the factors that have been provided by Nicholas Hans. Mallinson has given the factors in other sub-headings.

One will find three characteristics in the work of Mallinson. These three characteristics are (1) emphasis upon historical detail, (2) giving a broad conspectus and (3) giving some details of recent developments.

In short, Mallinson's contribution to the study of comparative education can be summarized as:

* the national character determines the kind of education.

* the future is determined by the character of a people.

* natural environment, social heritage and education determine the national character.
* national character is never determined by one factor alone.

* Geographical and economic factors, the historical factor, the religious factor and the political factor influence the national character.

While Joseph Lauwerys has expressed some dissatisfaction with the concept of 'national character.' One would like to know his contribution to the study of comparative education. Here, the investigator will present his contribution to the comparative education.

**B.(i)(d) Joseph Lauwerys:**

He is a contemporary of Hans and Mallinson. His vigour is seen in two directions. First, he showed his firm conviction that the promotion of international understanding should be made by all educationists. And, secondly, his contribution in the comparative field. About Joseph Lauwerys, Phillip E. Jones writes,

"He believes that the establishment of a predominant mode, or modes of thought in a culture can be linked to every aspect of educational organization in that culture, including the kind of school curriculum, the organization of the schools, and the methods of teaching employed." 18

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The approach of Joseph Lauwerys has been shown in this statement. This kind of approach can lead to meaningful comparisons and it will also help to predict as to what may happen in the future. In the approach of Joseph Lauwery, it can be seen that he has emphasized to study the school curriculum, the organization of the school and the methods of teaching employed. Because the study of education in its various form will help the research workers to understand the culture of a nation. He is referring to national character but he has advocated the isolation of one main element, the ideological, so that, it can be said that possibly Lauwerys has presented a more manageable scheme allowing a clear relationship to be established, if it exists, between educational practice and national thought or style.

"Lauwerys, too, makes a plea for comparative education to become part and parcel of the science of education; in this way, he says the study will be more deliberate and explicit, as well as objective, thus, allowing for a better shaping of educational policy."¹⁹

It has been said here that comparative education will be helpful to shape a better educational policy. In short, it can be said that Joseph Lauwerys believed in philosophical traditions and the same are useful in the study

¹⁹. Ibid., p.74.
of comparative education.

While, Arthur Moehlman combines both the cultural areas and theoretical model in the study of comparative education.

B.(i)(e) Arthur Moehlman:

Arthur Moehlman shows considerable interest in the classification of educational problems and the analysis of educational systems by means of a 'theoretical model'.

The components of a theoretical model are (i) long-range factors, (ii) Description of long-range factors and (iii) Paramount issues. According to Moehlman, the theoretical model is a collection of relevant long-range factors, which are described by him as a 'circle of humanity' in a 'space time continuum, constantly in the process of acculturation. What would a model ensure? A model will provide a systematic analysis of both contemporary trends and long-range factors.

A nation must try to improve all the components of its educational system. Moehlman groups these components into three major categories; They are:

"1. Orientation, including philosophy, law and finance
2. Organization, including general structure,
pre-elementary, elementary, secondary, and higher education, and mass media.

3. **Operation**, including students, teachers, curricula, methods of instruction, instructional materials, evaluation and testing, guidance, supervision, and administration".²⁰

It can be seen that the first category is based mainly on philosophy, while the second is based mainly on the organizational structure of the educational system. But, the details regarding students, teachers, curricula, methods of instruction etc. are included in the third category.

Moehlman believes that, if one is to seek an understanding of educational systems, the cooperation of a wide range of experts in related disciplines is necessary. That is, he shows considerable interest in the classification of educational problems and the analysis of educational systems.

Phillip E. Jones has said about Moehlman,

"It is significant, too, because of the attempt to go somewhat further than Kandel, Hans and Mallinson: Moehlman is one of those recent comparativists who represent a bridge between the Kandel-type school of thought and the more recent attempts to make comparative methodology more rigorous and scientific."²¹

²⁰ Quoted by Phillip E. Jones, Ibid., p.76

²¹ Ibid., p. 79
It could be seen that Moehlman has gone somewhat further than Kandel, Hans and Mallinson. He is also one of those recent comparative educationists who represents a bridge between historical-cultural type school of thought and the more recent attempts to make comparative methodology more rigorous and scientific.

B.(ii) The Search for a Scientific Methodology:

In this part, the investigator will discuss the methodological approaches of Bereday and Holmes, and stress the importance of their positions in the field of comparative education. He will also discuss the contributions of Karl Popper, Edmund King and J.M.Higson.

B.(ii)(a) George Z.F. Bereday:

If one wants to know what the fields of comparative education are, it can be said that the fields of comparative education may be divided into two parts: (a) area studies and (b) Comparative studies proper, covering more than a single country or region.

Bereday gives importance to area studies. He believes that area studies provide preliminary requirements for the work of real comparative analysis. He states that, "it is only the basis of the extremely specialized and often painstaking work of area scholarship."
that a comparative student can attain the required breadth of perception." It can be seen here that Bereday gives importance to area studies. Through the area studies, he believes, a comparative student can attain the required breadth of perception.

There are two stages in area study. The first is description. Bereday sees description of more than one educational system as the first step. One would ask: what is involved in description? The first step in the description is that a research worker has to collect primary, secondary, or auxiliary sources. Primary sources may be eye-witness accounts, reports, and the material that can be regarded as authentic and first-hand. The second step is to secure data for the description of an educational system by visiting the schools and other educational institutions themselves. While, the third stage is to record what one has seen. Finally, on the basis of the data available to the research worker, he has to establish certain hypotheses or tentative generalization.

The second stage is that of interpretation. There is

the evaluation of pedagogical data of the country or countries being studied in terms of their historical, political, economic, social, geographical, philosophical and other background in this stage. No one should get the idea that sheer description is comparative education. In fact, it is not. Description will lead the enquiring mind to arrive at the conclusion, but it is necessary to recall that an educational system does not exist in vacuum. One can evaluate not only educational data, but also, their causes and connections.

Bereday adds two more stages to his method when two or more area studies are to be used for comparison purposes.

The third stage is that of juxtaposition. In this stage, the research worker will establish similarities and differences in the data collected so far. The task of juxtaposition is really to allow the formulation of an hypothesis for comparison. This third stage will naturally lead to the fourth and final stage of comparative analysis is comparison proper.

In short, Bereday's contribution to the study of comparative education can be summarized briefly as shown below:

* He refers to area studies and comparison,
For purposes of area studies, there are two stages - Description and Interpretation.

For purposes of comparison, the two stages that are necessary are juxtaposition and comparison proper.

B. (ii) (b) Brian Holmes:

Bereday's contribution to the field of comparative education can be said that he talked about area studies first and comparison afterwards. Brian Holmes talks of Problem Approach. He has said,

"The 'problem approach' which has been widely used in comparative education seems well designed to meet the requirements of those who wish to make the study scientific and at the same time use it as an instrument of reform."\(^{23}\)

It can be seen that problem approach is useful to an individual who wishes to make the study scientific and at the same time use it as an instrument of reform.

There are four main aspects of the approach as suggested by Brian Holms viz. (1) problem analysis, (2) Policy formulation, (3) the identification, description, and weighting of relevant factors within a given context.

and (4) the anticipation or prediction of the outcomes of policies.

Regarding the problem approach, Brian Holmes has written,

"The problem approach is forward-looking. It implies that understanding comes largely, through processes of prediction and verification, in contrast to an emphasis on antecedent causes. It was regarded by Dewey as a (if not 'the') scientific method of enquiry, and thus, when applied to education, represents an attempt to make that study scientific." 24

It can be inferred from this that:

* the problem approach is forward looking,
* understanding comes through processes of prediction and verification,
* Dewey regarded it as one of the scientific methods and not the only one, and
* it attempts to make the study scientific.

In short, it can be said that the problem approach is one of the scientific methods that will help the research worker to study the problem with the scientific mind.

The approach is evaluative. Evaluative in the sense

24. Ibid., p.93
that the predictive element requires first that goals should be recognised and then that choices of policy should be made.

Types of study within the problem approach are directly related to the phases of reflective thinking. Regarding the problem solving approach of Brian Holmes, Phillip E. Jones writes,

"... he refers to John Dewey's famous analysis of the function of reflective thinking, designed specifically to solve a problem or clear up a confused situation:

1. Experience of a confused situation (or problem)
2. Hypothesis (or solution formation)
3. Problem intellectualization (or analysis)
4. Analysis and specification of context
5. Logical deduction of consequences
6. Practical verification."

In other words, Brian Holmes thinks of the problem first. He uses various steps of scientific method for solving the problem - problem, hypothesis, analysis, logical deduction and practical verification for solving the problem.

B.(ii)(c) Karl Popper:

Karl Popper has propounded the 'theory of critical of critical dualism' that,

"According to my understanding of Popper, then, critical dualism asserts that in any society there can be identified and distinguished two types of laws - the normative and sociological...... The important characteristic of norms and normative laws is that they can be either accepted, rejected, or changed by men." 26

It can be understood from this, that in any society, one may identify two distinct types of laws - the normative and sociological. Normative laws can be either accepted, rejected, or changed by men.

Why did Karl Popper use the term 'critical dualism'? The 'dualism' refers to the two types of laws, normative and sociological - critical dualism. This whole concept is based on an argument which is propounded, principally 'Nature and Convention'.

The natural and the social, two different elements are seen in man's environment. This distinction between natural and social is often difficult to make, but leads to an important difference between natural laws and normative laws.

Explanation of 'critical' is more difficult, as there are many meanings attached to this word. Dictionaries are of some help. The Advanced Learner's Dictionary

of current English, for example, gives as one meaning of 'critical' "of the work of a critic"*. Now this is usually a meaning used in literature. The Oxford Concise, gives as one meaning of 'critical' "marking transition from one state, etc. to another".** It is difficult to accept one and dismiss the other as they are all important.

It has already been seen earlier that normative laws are subject to modification. Sociological laws can also be understood as natural laws of social life. In other words, these are laws related to the function of social institutions.

Phillip E. Jones writes that,

"It seems that the synthesis of Popper's whole argument is a link between the idea of the scientific attitude of objectivity, on the one hand, and the idea of a rational approach to problems on the other. Rationalism implies the use of reason, subjection to criticism and argument, and the admission of tolerance and impartiality." 27

It can be seen that the fabric of Popper's whole argument

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is a link between the idea of the scientific attitude of objectivity and a rational approach to problems. In short, it can be said that Popper is advocating the use of science, planning, reason and tolerance as the means of furthering the idea of democracy.

The methodological position of Brian Holmes has been criticized by Edmund King vigorously. The investigator discusses the contribution of Edmund King to the study of comparative methodology.

B.(ii)(d) Edmund King:

It has already been seen earlier that G.Z.F.Bereday gives three phases of development in comparative education to which Edmund King does not agree. Instead, he has given four phases of development in comparative education. The first phase was a phase of borrowing. The second, was the early twentieth century drive to universalize institutions like primary and secondary schools. Third, post Second World War comparative education helped in the development of formal education. While, since 1960, attempts have been made to use educational research as an aid in making all decisions.

Though King emphasizes on decision making and the implementation of decisions, he believes that comparative
education has a variety of aims. He believes that comparative education can be helpful in four ways. First is an informative-analytical aid, especially to students interested in education, "by showing the 'wholeness' of cultures'. Second, he shows it as a repository of techniques to help the analysis of problems where some study is proposed. The third, the comparative education provides criteria for specific inquiries and finally, comparative education helps secure effective implementation of decisions. As education has moved more to the centre of each national stage, educational discussions are more important. They are becoming more complex.

Phillip E. Jones writes, "He believes comparative education can assist in making changes in educational policy which are the most peaceful and constructive of social and political changes." 28 It could be seen that comparative education can be helpful in making changes in educational policy.

Edmund King recommends conceptual framework as the method of comparative education. What are the elements of conceptual framework?

28. Ibid., p.124
* The first element is that of rapid social change.

* The second is of assisting in decision making, by supplying educational insights rather than by accepting the idea of social laws.

* The third is that of involvement, or commitment, in a democracy.

About the third element, Phillip E. Jones writes,

"Commitment is important, King states, because we are now so involved in education and reform is obviously necessary. Reform involves decisions, the feasibility of alternative courses of action and planning the effective implementation of reforms approved."29

It can be understood from this that reform in education is absolutely necessary. As reform involves decisions, the feasibility of courses of action and planning need to be approved.

* The fourth is the pragmatic approach in which the use of hypotheses, etc. is commended.

* The fifth element is the firm belief that work in the social sciences is carried out under conditions different from those of physical science.

29. Ibid., p.127.
In other words, conceptual framework includes:

"♦Ecological context . (Pattern of culture)
♦Personal experience (bias)
♦Pragmatic Approach
♦Democratic involvement
♦Change."

So far, the different methodological approaches to comparative education were seen. The attempt has been done to classify the methodological approaches by J.M. Higson. The investigator presents here the contribution of J.M. Higson in this part of the chapter.

B. (ii)(e) J.M. Higson:

J.M. Higson has attempted to classify the methodological approaches. Higson sets out eight criteria for categorization. These eight criteria as shown by Phillip E. Jones are shown here:

"(1) The first is "whether analysis establishes an initial basis of comparability”. (2) degree of analytic abstraction, (3) main locus in time of relevant data, (4) whether social change is analyzed. These seem to be the four most important criteria. The eight categories arising from the four accompanying dichotomies 6 suitable slots for classification. These are short-handed by symbols, viz.:

Construct: C anti- or non-construct: N

30. Ibid., p.130
THE JOURNEY OF COMPARATIVE EDUCATION

CHART 11.1

THE PERIOD OF ANALYSIS

THE PERIOD OF PREDICTION

THE PERIOD OF BORROWING:

MARK
ANTONINE
JULLIEN

DIDEROT
LA CHALOTAIS

SIR WILLIAM PETTY
LOCCANINS
GUILLAME POSTEL
MONTAIGNE

IBN KHALDUM
MARCO POLO AND CARPINI

CICERO.

PLATO
XENOPHON
CONTRIBUTION OF
HERODOTUS.

THE THIRTEENTH CENTURY

1332-1406 A.D.

1000

800

600

400

200

100

100-50

200-300

400-398 B.C.

349-348 B.C.

484-425 B.C.

500-400

600-700

800-900

1000-1100

1200-1300

1400-1774

1774 A-P.

1763 A.D.

1841-1941 A.D.

1944 A.D. CONTINUED

1817-1841 A.D.

1817-1841 A.D.

1861-1863 A.D.

1854-1887 A.D.

1960 A.D.

1532-1406 A.D.

1776 A.D.

1783 A.D.
It can be seen that an attempt has been made to symbolize the works or methods propounded by comparative educationists. All the approaches are coded by using these symbols. He has given six main methodological approaches to comparative education.

The journey of comparative education is shown in the Chart II.1.

After having seen the contributions of various people to the comparative education, the investigator presents the previous researches in the field of Teacher Education.

2. Previous Researches:

Not much attention was given to the training of graduate teachers working at the secondary school level. This is evident from the fact that there were only fifty-one institutions in the country providing training to graduate teachers in the pre-independence days. The development in teacher education institutions was much during the post-independence period and the number went

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31. Ibid., pp.137-138
Teaching at any level of education can hardly be meaningful if it is not backed by continuous enquiry and a close acquaintance with the findings of research. There has been a good awakening among teacher educators during the last 20 years and some good research work in the area of Teacher Education has been done in the country.

The Indian Association of Teacher Educators chose "Research in Education with special reference to Teacher Education", as the subject for the October 1972 Conference. This shows the interest of teacher educators in this area. The report of the conference is yet to be published. It will not be out of place if the researches and studies undertaken in the different areas of teacher education are shown here. These are mainly in the following areas:

1. Surveys;
2. Factors related to Teacher Education;
3. Problems in Teacher Education.

The studies undertaken in the areas shown above are as follows:

I. Surveys:


(iv) Shrivastava, S.: Growth and Organisation of In-Service Programme in India and its impact on Secondary Schools, Ph.D., Sardar Patel University, 1966.

II. Factors Related to Teacher Education:


(ii) Bina Roy, Relationship Between the Measures of Success of teachers as students under Training and as Teachers in Schools, Ph.D. Education, Delhi University, 1965.


(ix) Verma*, I.B.: An Investigation into the Impact of Training on the values, Attitudes, Personal Problems and adjustments
III. Various problems in Teacher Education:

(i) Adaval, S.B.: An Investigation into the Qualities of Teachers under training, Ph.D. Education, Allahabad University, 1962.


(v) Shanker, L.: The Impact of Extension Services Departments on School Improvement in Haryana, Extension Services Department, College of Education,
Kurukshetra, 1969.

(vi) Sharada Devi, Garudacharya, Education of Graduate Teachers in the Traditional and Basic methods - An analysis of the Problem and Suggestions for an Integrated Pattern to suit our Socialistic Pattern of Society, Ph.D. Education, M.S. University, 1964.

(vii) Sharma, R.C.: To investigate the professional needs of Teacher Educators of under-graduate Training Institutions of Madhya Pradesh and Maharashtra, Ph.D. Education, Vikram University, 1970.


Over and above the studies shown above, the following.
Studies also deserve to be mentioned:

(i) Study undertaken by Department of Education, N.I.E., New Delhi.

Pandey, B.N.: Curriculum (At Secondary Level), Teacher Education in India, N.C.E.R.T., Delhi, 1970.

(ii) Study undertaken by the Government of Maharashtra:


It will be seen from the above list of research topics that most of them are Ph.D. theses. The studies that were undertaken in the area of teacher education were either supported by the State Government, N.C.E.R.T. or I.A.T.E. This clearly shows the importance given to research in teacher education with a view to improving the same.

After reviewing the literature related to the
comparative method and previous researches in the field of teacher education, the investigator would discuss the Basis of Teacher Education Programme in the Chapter that follows.
References

A. Books:


B. Periodicals:


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