

Research Imperatives In Geography Education

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I. Introduction

Geography is the science of the surface of the Earth and its inhabitants. Man is one of the important members of the family of the inhabitants residing on this surface. In order to lead a meaningful life the man needs to understand himself and the elements surrounding him. The action and interaction of the living organisms as well as non-living bodies present over the earth's surface have influence over the human beings in shaping their life style. Hence it is imperative on the part of every individual to study geography. Considering its importance in the affairs of day-to-day living geography as a subject of study has been introduced from the elementary school level.

II. Background

Origin of geography can be traced to the days when man had to think of environment, food, shelter from the beginning of his existence on earth.

In earlier times the travellers and conquerors were inspired to know about their inhabited earth, its inhabitants, its shape and size and its relationship with other planets of the universe. Gradually people became curious about the study of geography.

Among the notable persons who contributed substantially to the study of geography, Pythagoras (a great Egyptian traveller), Herodotus, Plato, Aristotle, Alexander, Erasthenes etc., are noteworthy.

Pythagoras was the first person to find out the fact that the globular earth is revolving with the other five planets round some fire and the Earth is rotating around its axis. Plato explained the bearing of physical factors on the character of Greeks. Aristotle explained the eclipses. Alexander prepared the maps of his routes and the place he conquered. Erasthenes was the first person who measured the Earth. According to his calculation the circumference of the Earth was 25,000 miles which is not far from the correct one.

Hipparchus, the roman astronomer introduced the idea of latitude and longitude.

Prior to 15th century Geography occupied a very subordinate position in the school curriculum. In the 16th century Sir Thomas Elyot added life to this subject by preaching that geography broadens the outlook, enlarges imagination and quickens the senses. He laid special emphasis on the use of pictures and maps in the teaching of Geography.

In the 17th century, Geography was included in the school curriculum because of its practical utility in navigation.

Kant (1724 – 1804) gave a philosophical foundation to the importance of geography. He tried to find a foundation for geography within the framework of other sciences.

During 19th century, Geography was considered as a pure science and is the study of environmental influences and a science of man studying action, interaction and inter-relation between man and nature.

The discipline of Geography is currently overflowing with a number of concepts and there are as many as concepts as there are branches of Geography. The perspective of present day geography is as wide as Earth, as large as life itself.

III. The Problem

Although enough importance is given to geography, it is observed that the subject matters taught to the students from class I to class X in schools, no special emphasis is given to the study of geography. Parents used to give importance to the study of Mathematics and English by their children as these subjects have more utilization value.

It is a matter of great concern that, now-a-days Economics have been tagged with Geography as a school subject, thereby minimizing the importance of Geography as a special subject.

In all the parts of the country barring a few experimental and English Medium Schools, others don't have minimum facilities for teaching geography. Geography education is confronted with countless obstacles. In many colleges geography as a subject has not been introduced so far.

Due to this negligence it can be said that, most of the students in our schools and colleges fail to acquire basic geography knowledge.

It should be the major concern of everybody from the parents to the administrators to consider the cause of lack of interest on the study of Geography and try to overcome the problem.

IV. Need For Research

There is no advancement of geography as it is required today. It is same today as it was in 50 years back. In order to give importance to the study of geography research work is imperative. As any successful endeavor starts with a research base. Attempt should be made to initiate research efforts in connection with the improvement in the study of geography. Before this is to be done, it is necessary to investigate into the researches already conducted on the study of geography.

V. Researches Conducted On The Study Of Geography

Out of studies conducted in Geography Education in India, from 1963, these deal with different aspects of geography education.

Table 1: Studies Dealing With Different Aspects Of Geography Education

Sl.no	Aspects of Geography Education	Number of studies conducted
1	Study of Geography at Primary level	4
2	Study of Geography at Secondary level	17
3	Evaluation techniques in Geography Education	4
4	Examination in Geography	2
5	Physiological factors related to Geography Education	3
6	Use of Educational Technology in Geography Education	8
7	Geography Text- book analysis	4
8	Geography Teaching	4

Considering these studies on the basis of methodology, it is observed that different methods were followed. Out of these studies only one study followed historical method, 10 studies followed survey method and 15 studies followed experimental method.

These studies were conducted by different institutions and individuals to analyse different aspects of geography education. Some of the findings are –

VI. Findings

- ❖ The contents in each textbook is relevant to the objectives of Geography subject at Primary level.
- ❖ Geography syllabus is not concept – oriented and too lengthy.
- ❖ The content of geography textbook and syllabi are inadequate to achieve all the prescribed objectives of teaching Geography.
- ❖ The chapters of the textbook are not arranged in ascending order according to their level of difficulty.
- ❖ Units in each textbook are arranged with proper sequence as per physiological principle like attractive introduction that is based on previous knowledge of the concerned students.
- ❖ The technical words in the book are not explained.
- ❖ Some lessons in the textbook are unduly long and others are disproportionately small.
- ❖ The pictures in the textbook are sufficient but not attractive.
- ❖ Coloured pictures and bigger maps showing natural regions are not given in books.
- ❖ Questions in the exercises of books are neglecting reading of maps.
- ❖ Exercises contained at the end of the lesson.
- ❖ Schools of state did not possess the required quality of audio- visual aids.
- ❖ Overall situation of instructional materials required for teaching Geography was very dismal.
- ❖ Almost all the school headmasters face problems related to library and laboratory facilities for geography education.
- ❖ Most of the geography teachers face problems with regard to laboratory facilities, practicals, supply of teaching aids and training for handling hardware for teaching geography.
- ❖ Neither facility of geography room nor museum is available in large number of schools and the facilities for library and teaching aids are inadequate.
- ❖ A list of reference books for supplementary reading is not given in the textbook.

- ❖ A wide gap was observed between the objectives of teaching geography and questions set in examinations and textbook exercise items.
- ❖ The weightage given to subject geography in secondary school curriculum of Odisha varied from 5.71% to 6.66% during 1963.
- ❖ There is no clarity of teaching skills in the subject in 33% of teachers.
- ❖ Nearly 75% of teachers have no special knowledge in geography except reading geography as a special method at training level.
- ❖ Most of the teachers are unable to formulate specific objectives to teach, analyse concepts and develop suitable learning experiences for teaching concepts of geography.
- ❖ Most of the geography teachers are trained with about half of them with the subject of geography either at the first degree or at the post-graduate level.
- ❖ Government urban school teachers are more experienced in teaching geography than other rural counterparts.
- ❖ The students better achieve in physical geographical concepts than human geographical concepts irrespective of status.
- ❖ Film, film – strips, slides, models, specimen and pictures are not used at all. If used, their use is unsystematic.
- ❖ In the schools field – trips are not organized to provide direct experiences to understand and remember geography concepts.
- ❖ Objectives of teaching geography cannot be achieved through regular classes due to inadequate time.
- ❖ The teachers are aware of certain recent techniques and methods but majority of them follow traditional methods like lecture or question – answer method.
- ❖ Excursion method and field – trip method are not used in teaching geography.
- ❖ Teachers are interested to complete their courses and are examination-oriented.
- ❖ The students taught through Concept Attainment Model show better achievement in geography than the Traditional Teaching Technique group in average and low resource status educational institutions.
- ❖ Inductive Teaching Model is more effective for achievement in geography in comparison to the Traditional Teaching Technique as well as Concept Attainment Model irrespective of the resource status of educational institutions.
- ❖ The Concept-Oriented Model is more effective than traditional method.
- ❖ Inductive Thinking Model of Teaching was found effective on learners' achievement in Geography, History and Civics.
- ❖ Impact of Inductive Thinking Model of Teaching was found to be better than that of Traditional Method of Teaching in enhancing learners' Concept Attainment Ability and Inductive Reasoning Ability.
- ❖ No significant difference was found in the impact of Inductive Thinking Model of Teaching and Traditional Method of Teaching in enhancing learners' creative ability.
- ❖ There was significant progress in learning efficacy, practical examination, and change in knowledge and understanding in experimental group by using Memory Training Model in comparison to Traditional Teaching.
- ❖ Secondary school students taught through Programmed Learning and Interactive Multimedia Approach have better achievement in geography in comparison to Traditional Method.
- ❖ Computer Multimedia Interactive Strategy has effect on enhancing the achievement in geography.
- ❖ Programmed Materials are effective in inducing learning among students in case of dearth of geography teachers.
- ❖ The achievement of the students learnt through the workbook in addition to the textbook was higher than that of the students learnt through textbook alone.
- ❖ Students appreciated the workbook and enjoyed activities provided therein.
- ❖ 95% of the teachers both in urban and rural schools appreciated the workbook.
- ❖ Pupils of urban area have high achievement in geography than the pupils of rural area.
- ❖ Rural girls are high achievers than rural boys.
- ❖ Boys are superior to girls in general scholastic ability in geography.
- ❖ There is positive correlation between attitude towards geography and achievement in geography.
- ❖ Positive correlation is there in between intelligence of secondary school students and their achievement in geography as compared to the student with low reasoning ability.
- ❖ The boys and girls do not differ with respect to dimension of reasoning ability in geography i.e., analogy reasoning, inductive reasoning, deductive reasoning, eclectic reasoning.

From the findings it is indicative that text- book is the most important instructional tool to the primary school teacher. It is usually the basis upon which all teaching activities are organized. The teacher who usually read aloud the text- book and often this reading is interrupted with the question like what did the text – book say about the staple food of the people of Kerala? The teacher who read aloud from the text- book may be using it

to improve language skills which is an obvious misuse of the text – book. Likewise asking questions which are limited to recall of what is stated in the text is seriously restricting its use.

The repeat, text-book is the only instrument in the hands of the teacher and students. But it can be definitely said that text-book is not the panacea for all ills. Effectiveness of text-book is dependent upon the way in which the teacher uses them. The most obvious weakness of many text-book is the prevalence of highly generalized accounts of facts. Without supporting detail, the content is not likely to be very meaningful to students. The teachers must supply the necessary details. The best way to do this is to provide supplementary materials. It is also difficult to do with the limited resources and limited time available to most teachers.

VII. Imperatives Of Research In The Context Of Geographical Education

In the fitness of the situation quantum of studies conducted are not adequate to build-up a research base on which satisfactory geographical education programmes could be thought of.

No study delve deep into the real issues and important problems of curriculum development and instruction. The curriculum in geography is narrowly conceived and largely out-of-date. The curricular and instructional dimensions have remained static without sufficient guiding research. There is thus a real need for carefully planned and cumulative research to guide decisions in matters relating to curriculum development in geography.

Very few researches have been conducted so far in the area of text-book preparation and production. Co-ordinated effort on the part of universities and boards and other organisations is needed so that effort of one will get support from another and so ultimately research effort in the country through different organisations will become more effective.

Curriculum and method are intimately interlinked. Even the best curriculum and the most perfect syllabus remain dead unless quickened into life by right methods of teaching. Researches on development of modern methods for dealing with the changing concepts of geography is the need of the time.

Many studies only tried to identify inadequacies in the traditional methods of teaching, some of them finished their task after pinpointing the needed remedial measures. The impact of science and technology in solving problems in the matters of instruction can be investigated into and applied subsequently in simplifying the instructional process.

In a country where the problem of regional imbalance, problem of educating millions of people, training thousands of teachers unqualified to teach in real situations, mass- media approach suited to large classes are to be arrived at by conducting researches on media technology. Research should be undertaken to incorporate into teaching more and more interactional techniques to make them dynamic and productive.

Looking at the experimental studies conducted, the question is often raised on the superiority of one approach over another. Such studies do little more than demonstrate the obvious or they add to the confusion. Application and testing of the experimental findings in field situation need to be carried out to study them in terms of time, schedule and cost.

Most of the studies touched the surface problems and majority of those covered the secondary school stage. Primary school stage is the foundation of entire structure of education. More research should be conducted on primary stage of education and students must be made interested in reading Geography from the early stage of their education.

Research on teaching of Geography in school seems to have little effect on classroom practices. It is axiomatic that research to be worthwhile the results must be used. There is need of further research to put research findings to use. Long-term follow-up studies and transaction studies focusing on actual classroom processes are very much needed.

Research is lacking in evolving guidance techniques for teachers and parents and students. Research should be conducted in the use of self-study techniques like use of workbook, radio and T.V. programmes, Computer Multimedia Interactive Strategy. The possibility of writing self-study materials for the computer assisted instructional programme may be attempted and its effectiveness be ascertained. Ways of developing self-study habit in the students need to be studied. Research should be conducted to make the students interested in the study of Geography and make a preferred subject in society like Mathematics and Science.

VIII. Conclusion

Geography education appears to have become a victim of disinterest of the parents, teachers, students and persons in administration. Many inhibiting factors like inadequate facilities, unavailability of good text-books etc., are some obstacles on the way of achieving geography teaching.

So the need of the time is to make everyone conscious of the importance of the subject.

Research can show ways towards the solution of the problem that geography education faces today.

However the field of Geography is so vast and of great importance to the world that extra attention is required to boost the research output.

Research should be conducted in such a line, so that it may be ardently hoped that, the child from the primary stage will be interested in geography and will be conscious of the fact that he is a principal actor, on whose contribution based on intelligence and skill, the destiny of the present generation will depend and that of his future generation will depend.

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