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## **MODEL RESEARCH METHODOLOGY FOR GEOGRAPHICAL STUDIES**

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### **KEY-WORDS**

Model, Research, Data, Related Literature, Hypothesis, Research design, Quantitative Research, Qualitative Research, Field Survey, GIS, Field Observation

### **ABSTRACT**

Research aims at exploring the phenomenal issues and at studying them systematically and scientifically in a way that the concerning issues are resolved at the earliest possible in the interest of the human beings living in the various parts of the globe. Research is now adopted in all the fields with a view to developing concepts and making generalizations. Research is a common thing in all the disciplines.

Often in the form of quantitative research, the geographical studies are specific studies that study the natural and geographical phenomena and encompass the geographical problems. Every geographical occurrence whether earthquake, landslide or any other problem affect the people living on the earth in one or the other parts of the world. For the sake of having a control over such disastrous problems, it is essential to develop an understanding about the causes and effects of such problems.

Geographical researches are conducted under a set process. However, there are several methods that are adopted and exercised by the geographers for the purpose. The geographers are

divided on the study methods and methodology. However, the mixed method that enables the researchers to peep into the depth of the problem is approved by the majority of them.

The paper is based on the secondary data available in the various research papers. The findings reveal the components that need to be included in the research methodology of geographical studies and researches.

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## **INTRODUCTION**

Research means the creation of new knowledge and the use of existing knowledge in a new and creative way so that new concepts may be generated, methodologies and understandings may be developed. Research involves synthesis and analysis of previous research that may lead to new outcome. Geographic research may be defined as the critical objective study, investigation and explanation of specific cultural and physical phenomenon.

Geographic research is carried out by geographers with a specific purpose to develop a sufficient understanding of the natural-geographical phenomena and to be familiar with the causes and effects on the people of the earth. The techniques of geographic research address specific problems and reflect the focus of the discipline at the given particular times. At the root of the techniques of geographic research and studies, there lie conscious decisions of the geographers about the information to be collected the spatial scales the information is collected, compiled, analyzed and displayed at. Therein lie, at the same time, data sampling strategies, experimental designs, data representation and projection, data analysis methods as well.

With the passage of time and with the advancement in the field of research, new techniques are introduced for collecting, analyzing and interpreting data. The research techniques associated with the geographic research are not an exception to it. Indeed, there is a close and

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integral relationship between advancement of the discipline and technique development and improvement.

There is a great variety of perspectives in Geography which helps the geography-researchers be conscious of the impact of theory on the technique development. For example, in the contemporary scenario, GIS is a very popular technique which reflects and reinforces the influence of the spatial analytic theories in Geography. At present, there are several research techniques that are being used by the geographers across the world. Almost the same is true in the context of Indian geographic studies.

## **MODEL GEOGRAPHIC RESEARCH METHODOLOGY**

Model geographic is the one that may allow the geographer-

- To make an accurate observation of phenomena because it is only through the observation that the complex real world may be represented.
- To make an effective fieldwork at micro to mesoscales
- To make field observation and field exploration because for a geographer, field is the laboratory that allows him to make field observation, to identify the variation of the places, and to make intensive and comparative case-study
- To detect and record the electromagnetic radiation signals from the Earth's surface and atmosphere using sensors placed aboard aircraft and satellites, that is, using remote sensing technique
- To estimate the values of variables through sampling and to evaluate the efficacy of sampling designs
- To display and analyze the information through the various types of maps, that is, by having mastery over cartography
- To perform spatial analysis to address research and application questions using GIS technique
- To make geographic visualization
- To produce successfully spatial statistics.

## REVIEW OF RELATED LITERATURE

- **Beyea & Hatch (1999)**, in their study entitled **Geographic Exposure Modeling: A Valuable Extension of Geographic Information Systems for Use in Environmental Epidemiology**, discuss the significance of geographic modeling in terms of environmental protection. The study finds that geographic modeling can help in the interpretation of environmental sampling data associated with airborne concentration or deposition. It can also successfully act as a sophisticated interpolator that allows values to be assigned to locations between points where the data have actually been collected.
- **Bruce R.Barringera & Daniel W.Greeningb (1998)**, in their research paper on **Small business growth through geographic expansion: A comparative case study**, inform that the geographic expansion is so helpful in the growth of small businesses that fall in the category of cottage and small industries that can be handled from home or from some point of place near home. The study says that the small business sector is on the track of constant growth despite several problems and challenges before it. The geographic expansion approach believes that with the geographic growth, the business of the firms expand from their original locations to additional places. Hence, geographic expansion is helpful to those firms that fail to expand their business in their current location and that need additional area.
- **Mei-Po Kwan (2004)**, in the study entitled **GIS Methods in Time-Geographic Research: Geocomputation and Geovisualization of Human Activity Patterns**, discusses the importance of time geography. The author is sorry to say that time geography is very important and needs to be promoted, but the researchers hardly pay attention to it. Its importance lies in the fact that it deals with human activity patterns and movements in space-time. Obviously, with the changes in times, advancement in the field of technologies and with the availability of geo-referenced individual data and the introduction of GIS (Geographical Information System), Time Geography is growing more and more important day-by-day. Its importance in operationalization and implementation of time geographic constructs cannot be underestimated.
- **Basil Gomez and John Paul Jones (2010)**, in **Research Methods in Geography A Critical Introduction**, discuss the research methodology for geographical studies under three parts.

Part I involves Theory and Methodology , Theorizing Our World, Observing Our World , Measurement and Interpretation , Operational Decisions and Contents; Part II deals with Collecting Data, Physical Landscapes , Vegetation , Remote Sensing , Secondary Data , Social Surveys, Interviews, and Focus Groups , Ethnography and Participant Observation , Cultural Landscapes and Human-Environment Field Study; Part III deals with Representing and Analyzing , Maps and Diagrams , Descriptive Statistics ,Explanatory ,Mathematical Analysis , Regional Analysis , Modeling , Geographic Information Systems ,Analyzing Meaning and Ethics of Research and Writing It Up.

- **Katharin Peter (2011)**, in **Numeric Data Services and Sources for the General Reference Librarian**, teaches how to search statistics and data using a variety of common library numeric data products for the sake of geographical studies and researches. The study particularly focuses the use and importance of maps in geographical studies. For it, mapping application can be used. According to the author, Map is a web-based mapping application which helps the nontechnical users make and have dynamic statistical maps by inserting extensive demographic, social, business, and marketing data.
- [Sudhir Thakur](#) (2012), in the research article **Methodological developments in social geography**, discuss 'spatial organization', 'man-land relations' and 'area study' as the three core geographical traditions that are associated respectively with arrangement of objects in geographical space, man-land relations, man-nature relations. The two components of Geography, namely, human and physical focus on the the distribution and spatial structure of objects, understanding of the processes explaining the spatial structure, and the use of the spatial policies to correct the maldistribution of resources.
- **Zadrozny, McClure, Jinhee & Injeong J (2016)**, in their joint research paper designed on the theme of **Designs, Techniques, and Reporting Strategies in Geography Education: A Review of Research Methods**, discuss that the majority of researchers use NHST; geography education researchers can benefit from more coordinated research efforts across topic; A mixed methods methodology is a valuable research design in the field of geography education; Collecting and analyzing both quantitative and qualitative data proves to be

beneficial in improving various aspects of research; The geography education community must find a way to move forward effectively.

- **Alina N. Paranina & Roman V. Paranin (2017)**, in their jointly prepared research paper on **Information in Geographical Space as the Basis of Cross-disciplinary Researches in Culture Geography**, admit that geographical space needs to be studied and understood for the sake of understanding because it is a core aspect of Culture Geography. Geography is a science that- involves and integrates the knowledge in the system of Earth Sciences, fills the idea of information as an inherent property of matter.

## **OBJECTIVES**

1. To discuss geography education and its importance to the scholars
2. To describe and interpret the various components and traditions of Geography and geographic research
3. To focus the significance of geographic research
4. To bring forth the various aspects of the geographic research
5. To elaborate the methods and data collection techniques that are in use for the geographic studies
6. To discuss the importance of field survey method and field observation in geographic research
7. To emphasize the use of GIS in the spatial studies
8. To reflect the major ongoing trends in the field of geographic research
9. To explore the various research methods adopted for the geographic studies and researches
10. To explore the salient features of the model geographic research methodology

## **HYPOTHESIS**

1. Geography is the science that deals with the man's relation with land area and natural environment
2. Geographical occurrences are very common and geographical incidents keep occurring from time to time

3. The centre of the geographic events is the earth, and whenever there is any movement in the interior part of the earth, it affects the human living on the surface of the earth
4. Geographical studies are conducted to develop an understanding of the geographical events and occurrences
5. The geographical occurrences draw the attention of the geographers towards them and motivate them for the scientific study of the occurrences
6. Geographic researches explore the causes of the geographical occurrences through field surveys and field observations
7. Geographical occurrences affect nature and human beings
8. Effects of the geographical occurrences are explored through the geographic researches
9. Cause and effect relationship of the geographical occurrences is interpreted through the geographic research
10. Model research methodology facilitates the geographic research

## **METHOD**

The paper is a comprehensive and descriptive study through which a description to the process of geographic research and model methodology for geographical studies has been made. For the purpose of the study, all the steps that are involved in the process of qualitative and descriptive research have been observed, and an attempt has been made to maintain the scientific spirit of the work. The method adopted for preparing the research paper includes the following-

- Selection of the title
- Determination of the objectives
- Formulation of hypothesis
- Searching the studies related to the selected theme for the study
- Study of the related literature that was found available on the various internet sites in the form of research articles in one or the other journals meant for the study of the multidisciplinary research
- Analysis of the contents
- Classification of the contents

- Interpretation and analysis of the core aspects
- Drawing findings and conclusion on the basis of the reading of the selected research papers.

The study began with the selection of the title. Thereafter objectives were set and hypothesis was formulated. Review of related literature was made paying a special attention to the stuff relating to the subject and title. The related literature on the theme gave a sufficient feedback to the authors and paved a path for the study to be undertaken. The study ended with the findings and conclusion on the selected theme for study.

## **CONCLUSION & FINDINGS**

1. Geographic research is a specific type of research which aims at studying the relationship between man and land, and man and nature.
2. Geographic research is conducted under a set process that lays certain steps to be observed and followed by the researchers for the scientific study of the phenomena
3. Geographic researches are generally quantitative, and hence, quantitative data play a vital role in them
4. Observation of the land area under consideration, survey of the landscape etc. are integral parts of the geographic research
5. GIS is a very popular technique which allows the researchers to make spatial study
6. For the geographic studies, tables, maps, charts and graphs are essentially used for making the reflection of the numeric data
7. Mixed method is considered to be the best method for the geographic studies all over the world.
8. Model research methodology is essential for the geographic studies and researches
9. Model research methodology facilitates the geographic research
10. Model research methodology enables the geographers to make a systematic and scientific study of the geographical occurrences
11. Model research methodology involves certain steps to be followed by the geographers and enables him to draw conclusion and findings.



## REFERENCES

1. Alina N. Paranina & Roman V. Paranin- Information in Geographical Space as the Basis of Cross-disciplinary Researches in Culture Geography, European Journal of Geography Volume 8, Number 3:67 - 77, July 2017
2. Basil Gomez and John Paul Jones-Research Methods in Geography A Critical Introduction, 2010
3. Beyea & Hatch- Geographic Exposure Modeling: A Valuable Extension of Geographic Information Systems for Use in Environmental Epidemiology, Environmental Health Perspectives, Vol 107, Supplement I, February 1999 181
4. Bruce R.Barringera & Daniel W.Greeningb- Small business growth through geographic expansion: A comparative case study, Journal of Business Venturing, Volume 13, Issue 6, November 1998, Pages 467-492
5. Katharin Peter-Numeric Data Services and Sources for the General Reference Librarian, Chandos Information Professional Series, 2011, Pages 89-150, 2011
6. Mei-Po Kwan- GIS Methods in Time-Geographic Research: Geocomputation and Geovisualization of Human Activity Patterns, Geografiska Annaler, [Volume 86, Issue 4](#), December 2004, Pages 267-280
7. [Sudhir Thakur](#)- Methodological developments in social geography, 2012
8. Zadrozny, J.; McClure, C.; Lee, J.; Jo, I. (2016). Designs, Techniques, and Reporting Strategies in Geography Education: A Review of Research Methods. RIGEO, 6 (3), 216-233.