

A Review of Research Methodological Aspects (With Special Reference To Geographical Research Methodology)



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Abstract

Research methodology involves that specific and distinct method which is adopted for conducting a research in order to understand and control the phenomena. Research is made in order to understand the natural phenomenon, socio-cultural phenomenon and literary trends. Research is a universal phenomenon, and it helps in studying, analyzing and reanalyzing the things. A community of researchers is active in the world to accomplish this special task. Research has been there since the day when man had the intellect to realize his surroundings. At present, in India the research scenario reveals indifference of the scholars. The status of the modern research in India is not satisfactory, as most of the research work is done in pursuance of Ph. D. or other such degrees where research projects are essentially to be prepared and submitted for the completion of the courses. Very few scholars are serious for it. Internet world has made the previously done research accessible, and so the trend of copy, cut and paste is at the peak now. No research ethics are observed, and the researchers pay compliments to themselves for getting research papers published in bulk to their name and account. Research needs to be original and scientific for the sake of research. For it, certain ethics rigidly to be observed should be made and prescribed.

The study is all theoretical, qualitative and comprehensive in nature. The major hypothesis that formed the basis of the study is that the status of research in India at present is not satisfactory and that it needs to be essentially improved. Focused on the research methodology of the geographical researches, it finds that the research scholars conducting geographical researches lack the knowledge of the tools and techniques required for the study of the geographical issues, and the knowledge of the various statistical tools that help the researchers analyze the data. The geographical research is experimental, hence the researcher should be capable enough to study the geographical problems through a proper understanding of the research methodology. At its core, the study is a review one made on the basis of the review making of certain relevant studies found available at the various internet sites.

Keywords: Research, Methodology, Aspects, Scientific method, Observation, Title, Hypothesis, Display items, Data Collection, Tools and techniques, Generalization, Statistical Tools.

Introduction

K. S. Reddy, En Xie & Qingqing Tang (2016) bring to the notice that Indian higher education has long been criticized for several reasons, including the poor quality in course content, shortage of skilled teaching faculty, lack of research interest, inadequate infrastructure facilities, scarce financial support, uneven industry-centric skills, poor international collaborations, lack of motivation to compete internationally, meagre research output and number of citations, reluctance to establish global universities, and so forth. The study suggests the Indian Higher Education system to make sufficient improvement in all these fields so that the real research can be made.

According to Umar Farooq (2013) academic objectives of research are to find new propositions, to discover new facts, and to propose and intimate knowledge for academicians, while the utilitarian Objectives are to find the various causes for problem, to provide principles

of problem solution, and to give remedies for a social problem. Amit S Ray & others (2016) admits the growing recognition of the importance of academic research in India and its monitoring by public institutions. However, he is sure that the focus in these assessments has remained largely confined to quantity dimensions, completely ignoring the dimension of quality. Nana Adu-Pipim Boaduo (2011) believes that a research of any kind is endlessly creative and interpretive, and that in the research process, problem identification, statement of purpose, consultation of various sources of literature for the sake of the identification of the "gap lapse" to be filled by the study being undertaken, a rationale for the study etc. have an important role to play. Haiying Long (2014) throws light on the components of creativity research which is predominantly quantitative and psychometrics and experiment are the most frequently utilized quantitative methodologies; for which judges are employed frequently to assess creativity and correlational techniques are utilized most widely to analyze quantitative data; case study is the most frequently used qualitative methodology. The study concludes that most mixed-methods studies are rooted in quantitative methodology, and both creativity and gifted education research are dominated by quantitative methodologies.

Nandana Dutta (2013) emphasizes the necessity of ethics codes for research and research publications because it is only the ethics codes that can make the research 'quality research'. She is sorry to say that for those disciplines where such ethics has not yet been articulated, ethics codes from the biosciences, medicine and the social sciences have generally been used as models. Frederic G Reamer & Jayashree Nimmagadda (2015) are of the opinion that various professional associations in social work and regulatory bodies worldwide have been working to draft and implement comprehensive ethics guidelines, standards, and education so that the real output of education and research can be enjoyed. Shazia Jamshed (2014) distinguishes between the qualitative and the quantitative research methodology and holds that that by adopting qualitative methodology, a prospective researcher is going to fine-tune the pre-conceived notions as well as extrapolate the thought process, analyzing and estimating the issues from an in-depth perspective. This could be carried out by one-to-one interviews or as issue-directed discussions. Manmohan Agarwal, Sunandan Ghosh, Udaya S. Mishra, Upasak Das, Vinoj Abraham, Amit S. Ray & M. Parameswaran (2016) observe that in India the quality of social science research is measured in objective quantifiable terms. The study informs that a precise index of quality of social science research in India is developed, capturing multiple dimensions that are particularly important in the Indian social science context. The index is a combined measure of an articles index and a journals index, premised on the users' perspective and the producers' perspective on quality.

Hulusi Karagel & Dondu Ucecam Karagel (2014) hold the idea the research begins with the

selection of the title of the study which is very important and which requires much care and skill on the part of the researcher, hence it should be framed in a way that it can enable the reader to understand sufficiently beforehand what is going to be served through the contents of the study. All this can be accomplished successfully with the skill of the researcher. It is the quality and the virtue of this skill to implement and finalize the necessities, responsibilities and principles that the title requires. Sandeep B Bavdekar (February 2016) suggests to select some appropriate title because if the title of research is not appropriate, it can mislead both the researcher and the reader, and can be subject to a misleading research. According to him, multiple factors need to be considered while finalizing a title. A good title for research is the one which, on its own, is able to introduce the research work to the fullest extent, but in a concise manner. To him, title is the gateway to the contents of a scientific article, and is usually the first part of a manuscript that the editors and reviewers read. Based on their understanding of the title, readers decide if the article is relevant to them or not.

Abdullah Ramdhani, Muhammad Ali Ramdhani & Abdusy Syakur Amin (2014) believe literature review to be just a simple summary of the sources with an organizational pattern which combines both summary and synthesis. Review of literature is not a child's play, rather it demands a range of skills, such as learning how to define topics for exploration, acquiring skills of literature searching and retrieval, developing the ability to analyze and synthesize data as well as becoming adept at writing and reporting, often within a limited time scale. Anju Grewal, Hanish Kataria, and Ira Dhawan (2016) consider literature search a major step in performing good authentic research, and believe that without literature search no feedback of the problem is possible. They emphasize that it helps the researcher in formulating a research question and planning the study.

Barbara Kawulich (2012), admitting the significance of observation in research, asserts that observation has been the hallmark of much of the research conducted in anthropological and sociological studies and is a typical methodological approach of ethnography. According to her, observation is an important research tool which is used to collect data by teacher researchers in their classrooms, by social workers in community settings, and by psychologists recording human behaviour. To Jaya Prasad Tripathy (2013), research is not merely a collection of data from the participants only, rather there is huge amount of data that is collected through the routine management information system and other surveys or research activities. According to Lokesh P. Nijhawan & others (2013), no research activity is possible without the informed consent of the units of information selected for the collection of data because the responsibility of making research ethically strong and genuine lies in their hands. Velany Rodrigues (2013) draws the attention of the scholars towards relevance of the use of tables and figures saying that

display items are self-explanatory. However, the researcher should use the text to draw the reader's attention to the significance and key points of the table and figure, and ensure consistency between values or details in a table, give clear, informative titles. V. S Binu, Shreemathi S. Mayya, and Murali Dhar (2014) expects the researchers of the various fields to have a sufficient knowledge of the statistical methods and tools because the statistical methods and tools play a vital role in the analysis of data. It is required on the part of the research scholars to have an understanding of the concepts of basic statistical methods used at various stages of a research study. This helps the researcher arrive at valid and reliable results.

Objectives of the Study

1. Producing glimpses of research trends in India
2. Commenting on the status of the researches being conducted in India
3. Discussing research and research methodology
4. Laying emphasis on the various aspects of research methodology
5. Marking the difference between the research methodology of natural sciences and social sciences
6. Focusing the research methodology of geographical researches
7. Enlisting the steps observed for the geographical researches
8. Discussing the significance of title in the research studies
9. Discussing the significance of observation in research
10. Enumerating the qualifications and special abilities required on the part of the researchers
11. Extending valuable suggestions about how to conduct and carry out geographical researches in a way that some meaningful output can be gained in order to understand the geographical problems.

Review of Literature

T. Cheng (2012) asserts that geographical perspectives are now playing a significant role in PHC delivery, and for those engaged in informatics and managing population-level care, understanding key geographic information systems methods and terminologies are important as is gaining greater familiarity with institutional aspects of implementation.

S. N. Mohapatra, Padmini Rani and Monika Sharma (2014) observe that topography, vegetation, climate, water table, and even the anthropogenic activities all are affected by urban growth through diverse mechanisms. The study says that Remote Sensing and GIS techniques are very helpful in capturing the geomorphological features of the cities and other geographical areas. The findings reveal that the residual hills, denudational hills and plain areas, natural drainage network are affected due to the urban expansion. Hence, taking into account the microgeomorphological features of the cities, proper measures should be taken for the improvement of future urban scenario.

Walid Oueslati, Seraphim Alvanides and Guy Garrod (2015) conclude that although the variables

generated by the monocentric model explain a large part of the variation of artificial area, their explanatory power for modelling the fragmentation index is relatively low.

Linda McCarthy (Dec 19, 2016) delineates the picture of the population growth in the world, and says that by 2010, the world's urban population approached nearly 3.5 billion, and it is projected to rise to nearly 6.3 billion by 2050. Urban geography can help us understand urbanization trends and their expression in urban spatial structure, have a better appreciation of the economics of what goes on within cities, recognize the interdependencies involved in local, national, and international economic development in an increasingly globalized world, get a framework for conceptualizing.

Reddy, K. Srinivasa and Agrawal, Rajat discuss that a good case study supposes to fulfill the learning objectives and feed the practical applications, or managerial decisions through theories, concepts, models and principles. Further, the case should be flexible to teach or insert a theme in different areas of study. A case encloses multiple faces would guide faculty and students in effective manner. Teaching theory through case learning is an interesting task, and it gives a meek confidence and opportunity to insight the issues more in depth rather than broad coverage.

Hypothesis

1. Research is the master key that can enable one to open to gates of the unexplored world
2. Research trends in India are not satisfactory
3. Researches in natural sciences, humanities and various literatures are conducted all over the world to understand and control the phenomena
4. The modern Indian researches lack ethics of research required to guide the researchers
5. The approach of the researchers is just formal with hardly any special output
6. Research methodology involves the specific scientific method adopted for the various types of researches
7. Research methodology for geographical researches is specific and required the geography scholars to adopt certain steps using survey method and techniques and tools for the scientific study of the geographical problems

Study-Method

Since the study is a theoretical review study on the theme of research methodological aspects, various studies found available in the form of research papers and books formed its basis. The study began with the selection of the title feeling that most of the titles are selected in a hurry and without taking pains. Then it is the collection of the secondary data from the research papers with the idea that it is only through the internet sites that the secondary data on the theme can be easily and sufficiently got. Content analysis of the secondary data was made specifying the names, titles of the studies, name of publishers and publication year, and finally findings along with the other aspects of the study. Seeking support through the content analysis, the selected theme was elaborated in the context of geographical researches,

and finally, findings were made keeping in view the objectives and hypothesis set and formulated for the specific purpose of writing the paper. Suggestions of the eminent scientists about how to make research were followed in order to impart a scientific shape to the study.

Findings

1. Research is the only key to study, understand and control the social and natural phenomena
2. Without research, the complicated natural and social phenomena cannot be understood and controlled
3. Everyday thousands and ten thousands of researches are conducted all over India under the eminent and experienced research guides working in the colleges and universities of India, but with the exception of very few, none of them succeed in capturing the real spirit of research
4. Most of the researches made in India are more or less plagiarized
5. Research for the sake of degrees and publication reveals that it has lost its original form
6. The researchers prefer quantity to quality while conducting research or getting research papers published
7. There is an utmost need of the check on the plagiarized research stuff in India for the sake of betterment and improvement
8. Research is not a child's play and it required certain special qualifications on the part of the researchers that enable them to conduct research successfully.
9. No proper training is given to the researchers at the college or university level
10. Research methodology of social sciences and natural sciences are different from each other. Natural science is essentially experimental and quantitative while social science research and literary researches can be qualitative, descriptive and interpretative
11. Geographical researches are survey based, hence, often experimental in nature and aim at studying the geographical subjects, issues and problems with certain specific tools and techniques especially designed, approved and suggested only for geographical researches, such as, remote sensing and GIS techniques
12. Geographical researches are exploratory, quantitative and experimental for which the researcher first observes the geographical conditions of the study area, then proceeds further in the field making survey, collecting both the secondary and the primary data, analyzing the data with the help of the various statistical tools, using graphs, maps and tables in order to display the collected data, and finally arriving at the generalized findings
13. Selection of title, study of the relevant literature on the theme, formulation of hypothesis, collection, analysis, interpretation, tabulation and generalization of the problem are the various important aspects of research
14. The status of the researches in India, whether the natural science researches, researches in

humanities or literary researches, is not enthusiastic, and it requires improvement

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