

## **Literature Review on Trend and Quality of Research Work Carried Out in the Department of Education in Central Universities of India**

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### **Abstract**

The present research article “Literature Review on Trend and Quality of Research Work Carried Out in the Department of Education in Central Universities of India” is an attempt to study the trends and quality of research work carried out at PhD level in the department of education of few selected central universities by reviewing the available literatures. Without checking the quality at primary level of research, the quality of research cannot be improved. There is also need to see the balance in the areas of research done in the department of education. Doing research in particular area only by neglecting other areas of research would lead to duplication and imbalance in research which would affect the research development and whole research culture. As a result the whole nation suffers. The field of education is the nerve of the school education and led the higher education in policy and programmes. So, any imbalance in research in education would lead to imbalance in other fields of study.

This study is important for the policy maker, teachers, researchers and other stake holders. The review of the literature as researcher believes would help to those who wish to study about the quality and trends of the research. This study would help researchers to contribute in this field and help the nation from the imbalance research in the field of education.

**Key Words:** Trends in Research; Quality of Education; Central University; Higher Education; PhD; Research Scholar

## Introduction of the Problem

Research is one of the most important activities of the institutions of higher education. It is an important responsibility of higher educational institutions to create, advance and strengthen the culture of research in a balanced way. Every field of study of the higher education should get equal attention. If majority of the research is carried out in one direction or in one specific area only then it leads to the imbalances in many areas of the research which could not be a good omen for the research and nation. The quality of the research should be satisfactory and able to foster a culture of innovation, creation of knowledge and development.

India has the third largest higher education system in the world after USA and China (Soni, Chaurasia, and Soni -2014). In terms of the institutions of higher education, India has nine hundred and seven (907) universities. As per the data of the University Grants Commission (UGC-2019) there are 48 Central Universities, 399 State Universities, 126 Deemed to be University and 334 Private Universities. As per the data of All India Survey of Higher Education (AISHE-2018) there are 39050 colleges and 10011 Stand Alone Institutions in which as per UGC(2019) there are 687 autonomous colleges. India has also a large number of students enrolled in higher education. As per the data of AISHE (2018) the number of Gross Enrolment in higher education is 36.6 million in which 19.2 million are boys and 17.4 million are girls. Girls constitute 47.6% of the total enrolment of higher education. In terms of 25.8% Gross Enrolment Ratio (GER) (calculated between 18-23 years of age group) GER for males and females is 26.3% and 25.4% respectively.

There are 48 central Universities in India. Many of them have Department of Education. These departments promote research in various fields and areas of subjects. As per the data of Shodhganga (2019), there is a large number of Ph.D. theses submitted in various education departments of the country which are available for study online.

Among the various departments of the institutions of higher education, Department of Education plays an important role in the growth, development and advancement of the education system. It opens new avenues, chances for quality development and advancement of the curriculum. In the training of the teachers for the school education and higher education, the Department of Education has its own importance.

Every year thousands of students get enrolled in research programme in the institutions of higher education in general, and in the department of education in particular. At Ph.D. level as per AISHE (2018), Science stream leads the table followed by Engineering and Technology stream. The total number of Ph.D. awarded to the students in 2017 was 34,400 with 20,179 males and 14,221 females. The highest number of Ph.D. students come from the State Public University, which is 31.6% followed by Institute of National Importance with 20.4%, Central University with 15.8% and Deemed University-Private with 13.4%. These theses of Ph.D. are related to various fields of study and various problems and prospects of education. Some of them are on school education and others are on higher education. But the questions related to the research are: what is the status of the research and what are the areas of the study? Do the researches address the problems face by the Society and nation?

In the same way, the researches are also related to the problems of education of rural areas or urban areas or related to the local, state, national or global levels. These

researches include various subjects like educational psychology, educational sociology, Philosophy of education etc. Regarding these researches which are in the forms of theses of Ph.D., one possesses no information that how many of them are related to the school education and how many of them are related to the higher education. How many of them are related to the problems of the education of rural areas and urban areas; how many of them address the educational problems of local, state, national and global levels and how many of them are related to which area of study. What is their importance at local, state, national and global levels? Which level of education-school education or higher education- dominates the research of the department of education is also not known. Problem of which areas whether rural or urban dominates the research, is also unknown. In which subjects, the majority of the problems have been selected at Ph.D. level at the department of education? The answers of all these questions should be known. Without finding the answers of the above questions no planning can be effective for the improvement in the research and development of education in a nation. The aim of the present literature review is to know the answer of all the above questions from the point of view of researches done by the researchers.

### **Research Trends**

Oxford Dictionary (online-2019) defines trend as “a general direction in which something is developing or changing.” Generally trends denote a general direction in which things develop or change. Trend also refers to a popular tendency or inclination. In the present study the word ‘trend’ refers to the finding out of the direction or tendency of researches carried out in the department of the Education of the Central Universities. There is a need to see the trends of the researches to assess and evaluate the productivity and quality of the researches. By studying the trend, the researcher would find the direction and development of the researches which would tell the status of the researches being carried out by the education department. The proposed study would find the most neglected areas of the researches as well as the most sought areas of the researches carried out at the departmental level. The findings of the study would help in balancing the trends of the research.

Every year thousands of researches at Ph.D. level are carried out in various Departments of Education, and submitted in the form of theses. India is a country of billion population which needs qualitative and diversified education for their development. The nation needs research in various fields and areas of education. There are various stages of education in the nation. School education has its own importance for human resources and knowledge economy. Higher education has its own importance for the society and nation. The research which is done in the education department needs to be audited and assessed in the various perspectives which could be done with the study of the trends in research. The questions which would be answered are: What is the general direction (trends) of the research? Which areas of education e.g. school education or higher education has been prominent in the research of the education carried out by the education department. The researcher will study the trend of the research carried out in the area of school education and higher education. Which area of research constitutes the majority in the research and which area of research has been neglected?

India is a country where majority of the people live in rural areas. The rural area of India is characterized by the lack of educational opportunity. There is a shortage of institutions of higher learning and qualitative school education. The people living in the rural areas are facing numerous problems in education. Among the several problems which rural areas

face are: non availability of sufficient numbers of the educational institutions, teachers and infrastructure etc. There is also a lack of quality education. In the same way the institutions of the higher learning in the urban area are characterized by institutions of high quality, well equipped infrastructure and availability of the sufficient numbers of the teachers. In background of these problems at rural and urban levels the researcher would see another trend of research carried out by the department of education. This trend would be related to the study of the problems of the education at rural and urban areas. The researcher would also enquire the problems pertaining to some areas getting high priority and some low by the department of education. The educational problems of which region have been dominating the overall research of the department of education of the central universities will also be analysed.

### Quality of Research

In present time the quality of research is an important concern for various stake holders of the higher education. There is no single acceptable definition of quality. It is being observed from various perspectives that the parameters or indicators of quality education are different to different stake holders of the higher education. The quality in education is defined by Sharma and Kamath (2006) as “a philosophy that aligns the activities of all the key people in the education system with the common focus of customer satisfaction through continuous improvement of the educational system”. Another definition by Sharma (2010) of quality is “quality as compliance with a given standard or approximation to a set benchmark”.

The quality of the research has been defined in various ways. There is no universal definition. In an article “Defining the Study Concepts, What is the Meaning of Quality?” in *Managing Service Quality* (Accessed-2019), the quality has been defined in terms of ‘excellence’, ‘value’, ‘conformance to specifications’, ‘conformance to requirement’, ‘fitness for use’, ‘product desirable attributes’, ‘loss of avoidance’, and ‘meeting customer expectation’.

Is notion of the quality same everywhere? Narang (2014) paper “Notion of Quality Education” reveals that the concept of quality is relative to the time and place; need of the present and future and objectives of the education. In the words of Narang “quality cannot be seen as a static concept. Quality and standards are relative to the particular place and time and to particular learners and their circumstances. One important aspect of quality is the relevance of the subjects taught and the objectives of education”.

The reason for a non-uniform definition for quality lies in its inability of operationalising the concept. Yet quality has been defined in various contexts. For the proposed study the definition of quality would be based on the ‘conformance to specification’ as other criteria of defining the quality could not meet the required standard.

Can quality of the research be measured? If yes, then what could be the indicators for measuring the quality of the research? As far as the measurement of the research quality is concerned, there are various views. In his study “Can research quality be measured quantitatively?” Jones’ (2017) paper “Can Research Quality be Measured Quantitatively? On Quality of Scholarship, Numerical Research Indicators and Academic Publishing-Experiences from Norway” brings two important aspects of measuring the quality of the research. One is the numerical indicator for the research output to measure the research quality and use of that quality to finance the education by the neoliberals. In the words of Jones the measurement of the quality through quantitative measure ends in measurement

of quantity not the quality. Jones study shows that “Quality is expressed through verbal discourse, while quantity is expressed by numbers and statistics. Furthermore, number requires interpretation through qualitative discussion”.

Research quality can standardize if it meets a particular specification. This specification may be the various indicators or criteria. There is much debate among the scholars over the indicators or criteria which can standardize the quality of the research. Griffioen, Hug and Vanholsbeck (2013) Study “Criteria of Research Quality: International Perspectives” is a survey for the quality criteria of research in 10 European countries. The researchers came with 19 criteria in which 10 criteria are well known to all but 9 criteria are not well known to all. In the words of Griffioen, Hug and Vanholsbeck (2013) “the 10 popular criteria that the scholars have named: scholarly exchange, innovation/originality, rigour, relevance, productivity, recognition (= reputation), continuity/continuation (= promotion of young researchers), impact on research community, relation to and impact on society, connection to other research. These are the 9 criteria named by scholars but they are not - or at least not often - used in evaluation schemes: fostering cultural memory, reflection/criticism, variety of research, openness to ideas and persons, selfmanagement/independence, scholarship/erudition, passion/enthusiasm, vision of future research, connection between research and teaching/scholarship of teaching”.

Gogolin (2012) study “Identification of Quality in Educational Research Publications: The European Educational Research Quality Indicators (EERQI) Project: Revista de Investigacion)” is about the indicators of the research quality in the context of European Union. The study finds that contextual analysis can be used as an indicator for analyzing the quality of the research. The project for quality research analysis is based on “the intrinsic (words, graphs, metaphor etc.) and extrinsic indicators (bibliometric and webometric)”.

Is research quality assessment possible? On this question various studies have been conducted by considering different indicators. In the study of Brown and Ozgur (2018) there are two criteria: that is definition and solution of the research problem to assess the research quality. In the opinion of them the criteria of a good research should be independent from the guidelines of the editor of the journal.

Mahmood (2011) study “Factors Affecting the Quality of Research in Education: Student’s Perceptions.” is a search for other criteria for looking at the quality research. The study advances argument of other way to see the quality research is through teaching and learning. The study reveals that “The quality of research is depended on the factor like quality of teaching, research course, supervision/guidance and the facilities for research”. Can there be other criteria which could be used for auditing the quality of the research? Akkerman, Admiraal, Brekelmans and Oost (2006) “Auditing Quality of Research in Social Sciences” is an important study. The proposition is that “in order to determine the quality of scientific research three generic criteria have to apply to research decision: visibility, comprehensibility and acceptability”.

What could be the indicators for the quality research? On this question Nowaczyk and Underwood’s (1995) study “Possible Indicators of Research Quality for Colleges and Universities” is an important study. The study is based on survey from the faculties and found that “At a research university, publications and grantsmanship were the two main areas of focus” and “Faculty attached more significance to the competitiveness of the grant, the reputation and prestige of the granting agency and the outcome of the grant rather than the dollars required to fund the grant”.

In present time numerous national and international rankings are considered one of the important Indicators for quality research. The more higher place in the rankings the more

quality an institution is considered. Can rankings be accepted as an important parameter for quality research? Frey and Rost(2008) paper “Do Rankings Reflect Research Quality?” argues about the suitability of the ranking as an indicator of the research quality. The major arguments advances are – I) “the results of quantity rankings do not match the results of quality rankings based on membership on editorial boards”. II) “rankings based on quantity are incommensurable with rankings based on quality”. III) “the various rankings based on quantity are highly questionable. They are unable to capture “true” quantity, as the citation rankings based on different samples come to entirely different results”. IV) “One of the major conclusions of the analysis undertaken is that for the career decisions of individual scholars bibliometric rankings should be used with utmost care”.

What should be the method for assessing the quality of the research? Glasziou, Vandenbroucke and Chalmers (2004) paper “Education and Debate: Assessing the Quality of Research” gives the methods of assessing the research quality. The paper argues for I) “to extend, improve, and standardize current evidence hierarchies and II) to abolish the notion of evidence hierarchies and levels of evidence, and concentrate instead on teaching practitioners general principles of research so that they can use these principles to appraise the quality and relevance of particular studies”.

What makes a research of good quality? This question has been addressed by Simon(2010) article “Doing Good Quality Research” which enumerates the various indicators for the enhancement of the quality research. The indicators have been selected after much critical examination of the various studies. The indicators are “Purposeful, Methodologically Appropriate, Technically Competent, Makes a Contribution, Ethical, Critical and Coherent”.

In the proposed study the term quality means a ‘standard’ research. The researcher would first find a parameter for standard research and then on the basis of the above definitions of the quality, the research of the department of the central universities would be analyzed. So, a clear picture would be drawn on which the stake holders could ponder and plan for the betterment.

After discussing and examining the problem of study in detail from various angles, it can be said that the selected problem is worth investigating. The proposed study would help in finding out the areas where major researches have been done along with the areas which have been neglected and at what level these researches affected the direction of education. What is the standard of the quality of the research will also be studied. In the light of the above discussion it can be said that the quality of research can be assessed with the help of numerous indicators and methods.

## **Review of the Literature**

Review of the literature is an important step into exploring the various aspects of the research. Research needs a sound knowledge of the field of study, its various methods and techniques, which are found through the review of the literature. The review of the literature in simple term is to study all the available literature in that field in which study is being conducted. In case of newness of the field of study the related literature review is important to understand the field of study.

For the present study, many research literatures have been reviewed to understand the process of research and find the research gaps which could rationalize the present study. The review of the literature would guide the researcher to get insight into researches done in the related

topic. There are following literature have been reviewed to understand the problems and find the research gaps.

**Johnson and Daugherty (2008)** paper “Quality and Characteristics of Recent Research in Technology Education” is an attempt to assess and examine the research status in education technology over a period of the past ten years (1997-2007).

The major findings are-I) that 56% research in technology education is of quantitative type, 39.7% is of qualitative type and 3.5% is of mixed type. II) The method mostly used is primary in nature. Quasi-experimental, correlation and casual comparative were other methods used in research. In qualitative research interpretative and case study were the most used methods. There was no experimental study III) The data used in the study is primary in nature. IV) The collection of data is mostly from the secondary education followed by colleges and primary education. It is found that most of the data is collected from the ‘closed circle of people’ rather than open for all. The data collected is comprised on students (54.9%), teachers (20.1%), professionals (9.5%) and College Faculty (7.5%) etc. With regard to types of data collected, self-report comprised 33%, perceptions 25.9%, observable behaviors 16.8%, test score 15.7%, documents 5.6% etc. V) The research areas in technology education are related to the issues related to teaching (21.1%), curriculum (20.6%) and learning (20.6%) etc.

**Nasir and Kumar (2011)** paper “Citation Analysis of Doctoral Dissertations submitted between 1990 and 2010 in the Department of Economics, Aligarh Muslim University, Aligarh (India)” has analyzed the submitted dissertations for authorship patterns, literature formats, language, decade, country and rankings of journals on the basis of citation. The research is based on the primary data collected from the 40 doctoral dissertations which received 4,875 citations, of the Department of the Economics.

The findings of the study are –I) Most of the dissertations used English language II) Most of the references are from books and journals III) More recent data has been taken into account over long back published data. IV) There is domination of single authorship and less collaboration with the foreign researchers.

This study is relevant to find the various aspects of the research of a particular department of a Central University. This study has been done at the micro level and needs to be studied at macro level to get more information and validity of generalization. Like this study, the present study would conduct research on doctoral theses and would extend the study from micro level to macro level in term of variables and departments.

**Singh, K.P. and Bebi (2013)** study “Citation Analysis of Ph.D. Theses in Sociology Submitted to University of Delhi during 1995-2010” is about the analysis of citation of Ph.D. theses of sociology submitted in the department of University of Delhi during 1995 – 2010.

The findings of the study are –I) the researchers used books mostly for their research works. II) In term of country-wise citation, India topped the ranks III) In city-wise (India) New Delhi topped the rank. IV) In case of publisher, the Oxford University Press topped the list followed by Sage Publication. V) In Age-Wise distribution of the literature; period from 1998-1989 received the highest citation. VI) Journal-wise; Economic & Political weekly of India received highest 137 citation among the 22 listed journals. VII) On authorship- pattern, the trend of single author was much higher than two, three, four and above. VIII) In case of ratio of foreign and Indian author citation ratio, the citation of foreign author is higher than Indian author.

**Bozkurt, Ozbek, Yilmazeland Others(2015)**study “Trends in Distance Education Research: A Content Analysis of Journals 2009-2013” is a study about the current trends in the field of research in distance education. This study has been conducted to see the changing trends of the distance education and how to meet the challenges faced with the onset of the modern technology. This study has been conducted by a group of thirteen scholars. They identified the trends by reviewing 861 articles of the seven peer reviewed journals. They used the content analysis method to find out the trends of the research. On the basis of review, the findings were I) “the majority of published research deals with topics and issues with regards to ‘teachings’ and ‘learning’ process in online distance education. II) In term of research area at Micro level, ‘learning communities’ constitutes 13%; learner characteristics 12% and Instructional design 11%. At Mesolevel ‘educational technology’ constitutes 51% of all research area while the research did not mention the leading areas at Macro level. The data presented is not clear about it. III) In case of theoretical and conceptual background, the focus is on learners rather than instructors or administrators. IV) Numerous concepts and theories from other fields of studies are also getting place in distance education. The most frequent theories or concepts in distance education are community of enquiry, collaborating learning, constructivism, blended learning, transactional distance theory so on and so forth. V) In case of research design, the finding shows that 47% used qualitative research design, while 37% used quantitative and 16% employed mixed research design. In case of qualitative research design, the most used research method is case study (66%); in quantitative the most used research method is survey method (58%) and in mixed research design exploratory sequenced was the most adopted method (55%).

**Mishra(2016)** “A Study of Some Characteristics of Ph.D. Thesis Uploaded on Shodhganga” is about the characteristics of Ph.D. thesis uploaded on Shodhganga, a repository of theses of all the institutions of higher education in India. The study took hundred theses for quantitative and qualitative analysis. The analysis shows a variation and similarities among the theses in content, forms, methodology, research design etc. The common form of Ph.D. theses is the ‘introduction’, ‘review of the literature’, and ‘methodology’ etc.

The findings are – I) Among all the 15 Universities with Potential for Excellence (UPE), JNU uploaded the most number of the thesis (4459 in 2015 and 4458 in 2016). II) Every university under study has been increasing their upload of the theses on Shodhganga. III) The qualitative analysis of the theses finds that most of the theses did not include their list of published works, conferences and seminars, related to their Ph.D. Among 107 Ph.D. theses, only five theses from science give list of their published works. The finding questions the quality of the submitted theses and violation of the guidelines of UGC regarding submission of the Ph.D. theses which instruct the researcher to provide the mandatory information for the submission of the theses.

**M, HT and Trivedi (2018)** “A Study on Research Trends in Central Universities of India” is about the trends of research in Central Universities of India in respect of number of published research, citation, affiliation of the authors, areas and subjects, productive author and publishers. This study also throws some light on the quality in higher education.

Six objectives were set for the study relating the trends namely publication, affiliation, subjects, quality of papers and productive aspects of authors and publishers.

Thirteen Central Universities which were established in 2009 have been chosen for study.



The period of study was taken from 2009 to 2018.

The findings of the study are –I)As per the data, 2926 articles have been published by all the Central Universities under study. II) Among all the considered universities for the study, Punjab University published the highest number of research papers.III)In case of collaboration and affiliation, the selected Central Universities show a positive trend of collaboration.Punjab University shows the more collaborative trend than other central Universities. There is collaboration with the foreign institutions also but not on large scale. IV) The study shows that the Central Universities have conducted research in all subjects but the few most sought areas of research of the Central Universities are Genetics, Molecular Biology followed by Physics, Chemistry and Agricultural Science. V) In case of overall production of research papers, Punjab University leads the table in publication. While author-wise,Central University of Gujarat leads the table. VI) In case of citation of the research, the Punjab University led the table in citation of the research.

The review of these literatures show that there is a need to study the particular department or subjects at micro and macro levels .The present study which would study the trend and quality of the research is important in the context that no such study has been conducted at the level of the department of education of Central Universities.The review of the related literature would help the researcher to carry out his research by knowing the various points of view, methodologies techniques etc.

The literature review shows that the present study is a new field of study in education and as a result there is no research literature available related to the topic. But the sufficient research literatures in related field of study are available which could give an understanding of the topic. The researcher further believes that as this would be an emerging field of study, a large number of literatures would be produced till the completion of the present study. Because of the importance of the topic, the researcher has done the review of the related literatures to get idea for advancing his research. The review of the literature of the related fields strongly suggests that there is knowledge gap between selected field of study and related field of study which could be narrowed down by pursuing the research in selected topic. The present study would be an addendum in the body of knowledge of education particularly in study of the trend of research and quality.

## **Conclusion**

The review of the literature related to the topic shows there is need to conduct study in education in general and trends and quality of research in particular. The research related to the present topic has done at micro level. The researches are only limited to particular fields and need to expand more in related areas. In matters of research trends most of the researches are related to the research design, types of data, authorship etc. This type of research should be adopted in the field of education with the study of trends and quality of PhD done at the department level. This is not enough to pursue research recklessly but to see the trends of the research and the quality of research for a balance growth of research of the nation. Only a balance development of research can give new dimension to the research and bring fruits to the persons associated with it. The study on the given topic is important for the quality enhancement of the research of the higher education, department of education and nation. This type of study would strengthen the research culture in various fields of study at macro level and among the various groups of the institutions of higher education.

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