

# Improving Quality In Educational Research

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## Abstract

In order to match the international standards in teaching and research, a mentor must continuously work hard to stay up with the expanding body of knowledge. Standards for excellence in research often place an emphasis on the qualities of objectivity, internal validity, external validity, reliability, rigour, open-mindedness, honest and detailed reporting. Researchers generally lacks credibility, even with its target audience of teachers and administrators maybe because of not using educational research to influence educational practice. There is need for a conceptual framework to serve as the foundation for educational research as there is low comprehension of research methods, and the inability of the research to have an impact on educational policies, programmes, or practice. This paper is an attempt to study the various research initiatives in India, their contribution and identification of lacunae during conduct of research. Suggestions have been given to overcome these lacunae.

**Key Words:** Research, Knowledge, Standard, Educational practice, Initiatives.

## Introduction

Experiments and research that have improved both the philosophy and practice of education have produced modern education and its burgeoning tendencies. Today, research-based answers to the issues educators and institutions are facing are being provided by university departments, research institutes, and specialized centers all over the world. Additionally, the development of technological advancements such as the usage of computers, e-mail, networks, teleconferencing, and new software allow Indian scholars to work more efficiently with researchers across the world. Now, anybody and everyone, anytime, anywhere, can access entire world's knowledge, or even only a significant portion of it, to compare his or her knowledge with others to arrive at logical conclusions. The researchers can now examine and review a wide range of research publications more easily. Such a system might link research studies to relevant curricular materials, state regulations, teacher reflections, media coverage, and support groups in addition to connecting them to related research and related activity (Coladarci, 1954).

The potential for practical change in the conduct and/or organization of learning and teaching may be increased by the increasing quality of educational research that enables institutions and professionals to act differently. The quality of the researcher, scholar, and organization inputs determines how well the research turns out. The kingpin who is involved with the research programme from its inception to its conclusion is the supervisor (mentor). As a result, the supervisor's ability to direct research becomes crucial (Willinsky, 2001).

In order to match the international standards in teaching and research, a mentor (supervisor) must continuously work hard to stay up with the expanding body of knowledge. All phenomena and knowledge have both quantitative and qualitative dimensions. It is neither accurate nor helpful to distinguish between objectivity and subjectivity, which is typically connected with quantitative and qualitative research. Whether primarily intended to collect quantitative or qualitative data, standards for excellent research often place an emphasis on the qualities of objectivity, internal validity, external validity, reliability, rigour, open-mindedness, and honest and detailed reporting (Bleakley & MacAuley, 2002).

The extensive literature on educational research in India shows that there are many different, frequently conflicting traditions of educational research, with widely varying standards and quality. Why do issues with low research study quality continue to exist? How educational research may be enhanced to provide more significant outcomes in our educational institutions? How can educational institutions be made into institutions capable of enhancing their research methods over time? How research knowledge bases may be used more frequently in educational institutions? How can policy makers use educational research to help

them come up with plans to improve the educational system? In order to obtain a convincing answer to our inquiries, it becomes necessary to critically evaluate these issues against the backdrop of studies conducted in educational research portals.

### **Initiatives for research in India**

The nation has established a respectable network of institutional infrastructure for conducting educational research. Organizations at the national, international, and state levels, including the UNESCO, UNICEF, Ford Foundation, and Netherlands Foundations, as well as UGC, ICSSR, NCERT, CASE, NUEPA, and SCERTs, have established a respectable degree of recognition. Large-scale research programmes at the national level have reportedly received support from foreign organizations. Currently, educational research is conducted by 250 university departments, 150 graduate education programmes, 87 centres for teacher preparation, 35 institutes of advanced study in education, and 30 state councils of education, research, and training (SCERT).

In order to create the "Surveys of Research in Education," specialists, academicians, and practitioners in the field of educational research have spent a lot of energy. Surveys of educational research hold a key position among the diverse activities of NCERT. It serves as a national clearing house for ideas and provides advice to the government. The council has benefited the community of academicians and research organizations by disseminating accurate information on studies that have been completed on many facets of education. The surveys of educational research are helpful to schools as well as scholars. The Navodaya Vidyalaya Samiti has created reading materials for students and analyzed the effects of research findings from four surveys.

Five Surveys in Educational Research covering the years 1972 to 2000 have already been completed by the Educational Research and Innovations Committee (ERIC) of the NCERT. These surveys covered 8031 research papers and initiatives from different Indian institutes. The sixth survey of educational research comprises more than 2500 studies conducted in the nation between 1993 and 2000 by people and other types of institutions.

An excellent document of global study is the "Encyclopedia of Educational Research." This knowledge repository has been utilized by Indian academicians and professionals to advance their research endeavours. In retrospect, the years between 1900 and 1915 were a time when the foundations for testing and statistics were laid. These practices and methods spread more widely between 1915 and 1940. The majority of the standardized research instruments and tools were modified in India to fit the country's conditions. The field of educational research worldwide increased between 1940 and 1990. The majority of Indian universities and colleges were established during this time, and they conducted educational research. Contributions made by educational researches have continued to be quantitative and positivistic.

### **Output of research in India**

In academic, professional, and public policy circles, there has been considerable discussion surrounding the phrases- quality research and quality evidence. The controversy is rooted in the widely held belief that the quality of research in education is poor and unreliable, making it challenging to make a sure-footed, specific declaration or prediction about the evidence for better practice. As compared to ten years ago, there has not been much progress in educational research. Kaestle remarked in 1993 that it is arguable that educational research has a poor status, which is a cause for concern. We haven't been able to unite around any one possible consensus statement and speak with authority because of intracommunal conflict. Together with a disregard for developing coherent theories, these factors give the impression that education as a whole is less effective than the sum of its individual components. (Hugh & Schoenfeld, 2003).

Researchers generally lacks credibility, even with its target audience of teachers and administrators. Lack of credible examples of using educational research to influence educational practice may contribute to this. The fact that the traditions of educational research are not wholly consistent with efficient models bridging research and practice is one factor. Additionally, there isn't a lot of information on how teachers are prepared in institutions of education.

An estimated 10,000 candidates receive Ph.D.'s from Indian universities each year. Out of them, more than 300 are graduating from the faculty of education, yet, with rare exceptions, the quality of Ph.D. dissertations is on the decline when measured by widely acknowledged standards like groundedness, authenticity, explicitness, publication, and citation index, among others (Rajan, 2006).

In their study of 9000 theses (ICSSR-sponsored study), Dr. Rais Ahmed and Madulika discovered that 78% of them failed to make any intellectual contribution, 60% of the research studies were found to be repetitive, and 80% of the applied research studies were found to be trivial, mediocre, and devoid of any intellectual contribution (Kapoor, 2008).

Unpublished dissertations had not been examined to assess the quality of the study. Duplication of scientific work had caused the quality to decline. Research papers have not undergone rigorous peer review. Additionally, research articles were typically created from PhDs that were submitted to universities. The author was unable to update it or portray it as a credible research paper. The review procedure had devolved into a largely lighthearted and non-serious activity, and theses were authored by ghost writers. The standard of Ph.D. work has reached its lowest point. However, degrees are granted. The majority of examiners scarcely wrote more than one or two brief generic paragraphs. Researchers simply desired degrees. (Dahiya, 2001).

It was believed that an M. Phil. would give students a practical orientation in terms of choosing and identifying problems from the priority areas of educational research by developing a comprehension of the fundamentals of research writing; developing skills for analyzing data in finding the solution of problems with the aid of appropriate tools and techniques; describing findings by rigorous application of reasoned criticism; and developing an ability to understand the fundamentals of research writing. However, M. Phil level work was typically of poor quality and mediocrity. The student lacked the comprehension necessary to apply research findings in educational practice, as well as the capacity to do so. A need was felt for a tool to optimize research support and augmenting research productivity, which led to the creation of Indian Citation Index (ICI) that would serve as a platform for measuring performance of the Indian research journals.

Further, to raise the caliber of research conducted in India, junior research fellowship is given. The goal was to encourage high quality researches. The data shows a dismissal situation. Less than 1% of applicants could qualify for JRF in any session from 2002 to 2006. Only 3920 of the 5,03,132 individuals who applied for the JRF test were able to pass it in the previous five years. Only in the faculty of education 75% were eligible during that time. As a result, the research area was unable to draw in large numbers of exceptional students (Khanka, 2002). However, slowly the number is increasing.

The trend analysis (Surveys of Research in Education) shows that new knowledge produced through research has not been able to considerably advance the field of education. Improvement in this area was difficult despite national efforts to have quality control in educational research. The results of educational research revealed a lack of a distinct educational perspective, the need for a conceptual framework to serve as the foundation for educational research, a lack of comprehension of the research methods, and the inability of the research to have an impact on educational policies, programmes, or practice. Researchers were squeezing them into tiny, isolated themes, like outhills pushing deeper into a single location that might be a component of the larger globe. Many studies had been extremely jargon-heavy, narrow in scope, and exceedingly pedantic. Academics and policymakers are currently hesitant to use research in solving issues of education. (Slavin, 2002).

The majority of studies were found to be slanted toward quantitative data using descriptive survey methods and quantitative analytic approaches. In educational research, the qualitative method was neglected. In advanced nations, standardized tests and massive surveys, with powerful checks, which had been conspicuously absent in our system, are becoming more popular. The survey method has become overused in sociology of education. According to studies on language teaching tactics conducted in India, language learning strategies should be used at a macro level rather than a micro level (National Research Council, 1999).

Sector that has been neglected the most is teacher education. The researches have been carried out carelessly. The majority of studies were poorly designed and unrelated to the actual issues with teacher education. No solution has been found so far to raise the standard of teacher education because of absence of empirical study data. Researchers looked at individual components of the whole process of teacher education. Although it may seem that the research studies have covered every component of teacher education context, pre-stage, process, and product very important areas have not been covered. Excellent, reflective scholars could not be drawn to the idea of excellence and quality in relation to teachers, teaching, and teacher education. That is evident from an examination of 1000–1200 papers/articles that were published in 57 publications of educational research. Rarely did Indian research journals publish papers on how to create a decent report or how to raise the caliber of doctorate research in education. The majority of Indian researchers' research publications were rejected by international journals. Research articles on the standards for quantitative and qualitative research as well as doctorate research have been identified as a regular component of international research journals or review journals in education. (Kapoor, 2008).

Reports on meta-level analysis hardly ever appeared in Indian publications of educational research. These meta-level studies on a variety of topics, including teacher effectiveness, research and practice, research and professional development, research evidence, and policy planning for the reform of the educational system, are typically found in international educational journals. Bibliographic citations in Indian educational research publications showed that the majority of references or citations were from advanced nations, leaving limited room for Indian references in research works. Additionally, it was discovered that there was no room for Indian references in the international journals of educational research. Peer review of education research papers has rarely been published in Indian journals, but these studies typically appear in international journals. Furthermore, because peer review was lacking, information regarding the caliber of educational research was unavailable (Ahmand, 2008).

The Total Qualitative Report (TQR) editors and editorial board have received 550 original manuscripts from authors from in the United States, Puerto Rico, and 44 other countries, including India, since January 2002. Despite the fact that editors are able to use more than 88% of the authors who submit their papers to TQR for the manuscript development process, only 36% of their papers are actually published in the journal. There are only two Indian articles in the list. This was a reflection of little effort and poor quality of research skills. (www.cse.ucla.edu). Nautiyal & Sinha (2015) did an analysis of all journal articles published in the top 20 educational journals of the world for past 10 years (2005–2014) to assess the number of research publications by Indian researchers and scholars. The results were dismal with only one paper published by an Indian researcher in the 10-year span. Further, top five journal publishers (Taylor & Francis, Wiley, Sage, Springer and Elsevier) were considered and the list of all educational journals published by each of them was searched for the extent of Indian presence. An assessment of the number of Indian journals being published on these platforms was made. The results showed negligible Indian presence. The only two publishers that had some Indian journals listed were: Sage that published 3 Indian journals on education, which amounted to 2.4% of the total number of journals on education being published by it; and Springer that published one India journal on education, which amounted to 0.8% of the total number of journals on education being published by it. The rest of the three publishers had no Indian journals that were being published by them. Taking combined numbers, the share of Indian journals is only 0.5% of the total journals on education that are being published by the top five international publishers.

India has only four journals indexed in Education Resources Information Centre (ERIC) with two of them having indexed only till the year 1980. That amounts to 0.2% of the total indexed journal and non-journal sources. Social Sciences Index Citation (SSIC) has 271 journals on education and Indian has no journals indexed with SSIC Out of the 644 journals on education indexed in Directory of Open Access Journals (DOAJ), India has a minuscule share of 0.8%. This scenario clearly shows a lack of international presence of the Indian researchers, scholars and journals. Be it the publishers or the abstract & indexing services, India is not represented at the level it should be.

The majority of research studies that were published in Indian academic journals were not online whereas research articles, including meta-analyses and peer reviews of studies published in international journals of educational research, were readily available online without a fee. Now, the popularity of open access has been rising, however, this has also led to increase in the number of journals and publishers that are bypassing publication ethics for monetary gains and churning out articles that are low in quality. They are referred to as 'Predatory journals and publishers', a term coined by Jeffery Baell, a

Librarian at the University of Colorado, Denver. Predatory publishers adopt an exploitative business model of publishing and violate the ethical conduct by charging publication fees from authors without providing them the editorial and publishing services that would otherwise be provided by any legitimate journal. Nautiyal & Sinha, (2015) analyzed the predatory publishing taking place around the world to make country-wise assessment. It was found that India had the highest number of predatory publishers. Out of the total of 255 publishers, 26% were Indian. On the positive side, there are journals in education being published in India that can be relied on for following the ethical standards for research and publishing. These are journals other than the ones identified on the international platforms. Some of the prominent sources were: Indian Citation Index (24 journals), Indian Journals (9), and National Council of Educational Research and Training (6) and others (1). These sources listed a total of 40 journals of Education These numbers are extremely small for our research community that is backed by one of the largest higher education system in the world.

In conclusion, a study of the research shows that the state of educational research is extremely gloomy and appalling. The quality of research output at the Ph.D., M. Phil., and other levels has drastically decreased and is now worrisome. The repeated, poorly designed, and carelessly carried out studies were unable to yield any useful information. Policy makers do not receive sufficient data to make their judgments. Lack of a distinct educational perspective, a conceptual framework that serves as the foundation for educational research, a lack of comprehension of the research procedures, and the inability of studies to have an impact on educational policies, programmes, or practice are all problems. Research articles published in both national and international publications are getting worse and worse. Due to lack of peer review, input on the caliber of educational research is also unavailable.

### **Solutions to improve quality in educational research**

The goal of research is to identify practical solutions to problems, such as the best ways to teach children with different learning styles, how to motivate teachers financially, how to address opportunity gaps caused by class, sex, or race, and how to address the underperformance of students in rural schools. It would be a matter of policy if highly trained, well-paid teachers in government-run rural schools were unable to lead to progress of children. Developing and testing these hypotheses and predictions is one of the objectives of policy research (Day and Peter, 1994).

To identify difficulties and challenges experienced by the stakeholders and find research problems, interactive sessions with policy makers, regulatory authorities, management, principals, and faculty of schools and colleges should be arranged. This would ensure the exchange of knowledge, the development of pertinent research questions, the application of research findings to the creation of policy and the making of decisions, as well as the introduction of modifications to raise the standard of education.

A comprehensive research training programme should be used to improve the quality of educational research. The scholars should receive instruction on the numerous steps involved in doing high-quality educational research. The scholar should be prepared to recognize the significance and necessity of the research carried out, as well as how to plan, carry out, and assess a programme in light of potential policy implications. Scholars should not be subjected to undue pressure to publish research articles in order to advance their careers or earn research degrees at colleges and universities. Research should be subjected to academic and public review.

It is time for educational research to include parents, guardians, teachers, social activists, administrators and students in schools and other institutions. To advance educational research that is socially relevant and policy-focused, the multidisciplinary approach needs to be strengthened. Many social, educational, pedagogical, and professional concepts, paradigms, and theories must be used in the research (Kamil, 1994).

The regular feature of a national level research publication should be research articles on how to produce a good report and how to enhance the quality of doctoral research in education. For publication in international journals, the top research papers by Indian academics and professionals should be sorted out and disseminated in educational institutions. The Indian Educational Research Journals should have enough room for meta-level analysis reports on a variety of topics, including teacher effectiveness, research and practice, research

and professional development, research evidence, and policy planning for the improvement of the educational system.

Formal peer review process ought to be a vital and essential tool for maximizing scholarly potential. Peer review must be used effectively as feedback. In order to evaluate the reliability of the research for future policy and practice, it is necessary to continually attempt to synthesize and reconcile the various research findings, search for the logical connections between conclusions drawn from various types of research, evaluate the conclusions in light of the explicitly reported data and methodology, and report the research in a clear and concise manner (Dave, 2007).

By developing a research culture in our university departments of education, national institutions, and institutes of teacher education, high quality research can be encouraged. A teacher should view his employment more as a mission or vocation than just a way to make a living. The ability, capability, honesty, and diligence of the researcher, on the one hand, and organizational research culture and policy planning, on the other, could result in high-quality research. By investing in the research infrastructure, the research community, data production, information sharing, and access, the Ministry of Human Resource Development can support the long-term capacity of the research community.

The academic community needs to be supported by giving them the time and resources they require, as well as by being flexible with their workload and job assignments. To improve the standard of educational research, national and international organizations, independent professional organizations, and journal publishers should collaborate to establish norms, standards, and evaluation systems. The creation and monitoring of norms or standards for journal articles and professional meetings could result from collaboration with journal publishers (Eurich, 1962).

To respond to the demands of educators, policymakers, and researchers, there should be a National Research Centre exclusively for research purposes, composed of the best educational institutions. They would be able to make decisions about what to teach and how to teach it after receiving scientific proof of what works in educational interventions. The goal is to give these stakeholders a summary of existing research that is objectively evaluated, as well as information and instructional initiatives that have a significant impact on education and schools. What constitutes "quality-based research in education" should be decided by National Research Centre. It should accept topic recommendations from different stakeholders and identify popular themes from analysis of its website and professional network, as well as from review of existing research and policy directives.

Journals can seek assistance from organizations like Committee on Publications Ethics (COPE). COPE provides advice to editors and publishers on all aspects of publication ethics and, in particular, how to handle cases of research and publication misconduct. It also provides a forum for its members to discuss individual cases and encourages editors to ensure that the AIAER- 2015 cases they come across are investigated by appropriate authorities (COPE, 2015). At present there are 174 Indian journals from various streams of study that are a member of COPE. Looking at the numbers for journals in education, there are a total of 259 journals that are a member of COPE of which only two are Indian. By being members of such organizations, the journals can strive for better quality and adherence to research ethics.

The centre should concentrate on the efficacy of curriculum and instructional interventions in a variety of areas, including "technology," "curriculum models," and "professional development forms." The centre must make sure that there is enough high-quality research on a given topic to meet the needs of researchers and practitioners.

Higher education institutions that do educational research want to use evaluation techniques that are more unbiased, scientific, focused, valid, and dependable. The research communities at the national and international levels should collaborate to develop an evaluation model that is more integrated and complete and is based on dimensions of quality that are clearly defined.

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