

Details of Module and its structure

Module Detail	
Subject Name	Education
Paper Name	Perspectives, Issues and Research in Teacher Education
Module Name/Title	Methodology Issues of research in teacher education
Module Id	e-PG EDN 10.23
Pre-requisites	Basic understanding of education
Objectives	<p>After going through this topic the learners will be able to:</p> <p>discuss the research and development scenario in teacher education.</p> <p>identify the research problems in teacher education in India.</p> <p>Identify and discuss the problems in research methodology in teacher education.</p> <p>discuss the relevance of ethical aspect in teacher education.</p>
Keywords	Research methodology, Teacher education, research ethics

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1. Introduction

Research Methodology is the heart of the research. The methodology of educational research is based, in most instances, on research methods in the behavioural and social sciences, relying most heavily on psychology, sociology and anthropology, because research in these fields emphasizes logical-positivism, which uses experimental and quantitative research methods. Mostly educational research utilizes these methodologies. Educational Research is very often blamed to be descriptive and evaluative, rather than suggestive and contributing to policy formulation. There are wide gaps amongst developmental challenges and educational research determinism. Hardly 1% of the GDP is being invested on Research and Development in India. Problems are published everywhere. But, the solutions are rarely visible.

2. Problems of Research

a. More of descriptive & Evaluative Research than Suggestive

Educational Research is very often blamed to be descriptive and evaluative, rather than suggestive and contributing to policy formulation. There are wide gaps amongst developmental challenges and educational research determinism.

Educational Research is more of descriptive in nature which consists of Assessment and Evaluation, only describes and interprets what is. It is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident or trends that are developing. Assessment describes the status of the phenomenon at a particular time. It may deal with prevailing opinion, knowledge, practices or conditions. These are more of describing the phenomenon rather than providing more positive solutions and suggestions to improve and develop the same phenomenon.

b. Stereotyped Educational Research

Research by virtue of its nature is innovative, searching for the clarification again and again in different ways and means. We have great many number of researches which do not find expression at the grass root level. There are innumerable reasons for this, but at the research point of view, the research needs to be innovative, should focus on the needs of the society. As the society is diverse, schools are diverse and the learners are diverse equally the research

needs to be divergent. Educational Research perhaps needs the big attention of scholars, government and public organizations, as Education has become the essential factor of life. The research related to educational aspects really plays a vital role in developing the future of education in India.

Research in education is replicate and repetitive devoid of freshness, either of problem or of approach or of methodology. The national agenda for research needs to be developed in alignment with the developmental objectives. A prospective plan for research and innovations should be framed with regional and national developmental priorities. The research methodology must be compatible with the local problems. There is a need to be innovative. There are mismatches between research trends and problems. Regulatory mechanism to tone up the research quality needs to be evolved. There is a need to evolve research quality indicators. There is a need to evolve social sciences compatible indigenous research methodology. Philosophical & historical studies are very rare. There is more of quantitative research than qualitative. So the stereotype is no more acceptable in the research society, it needs to be divergent, updated and truly a need based one.

c. Innovative Research in Teacher Education

Where the ideas spring, feelings flow, motor creates, nature blooms, self with environ resonates, the spirit reins, there, we innovate, construct and create. The soul of a gardener resides in the seeds, the soul of philosopher resides in the mind, the soul of piper resides in the pipe, the soul of a singer resides in the voice, the soul of a dancer resides in each & every body cell, the soul of a poet wanders in the nature, the soul of a sculpture resides in the stone, the soul of a teacher wanders with the learners. Dancing crops, flowing wisdom, enchanting music, touching songs, resonating dance, immersing verses, speaking sculptures, and enlightened learners are the wonderful springs of nature. Teacher Education is a discipline which initiates the progressive generations on what has gone by, where we are, where we want to go, and what we like to create, observing healthy, meaningful and long life.

Innovations in Teacher Education & Research in Teacher education are very rare. It may be attributed to various factors. Innovative Research needs lots of support from all surroundings

of the society, Novel ideas do not incubate because of the adverse external conditions. There are wide gaps between the visionaries and actors. So, very often the innovations have short life and die down in the institutions, where these originate. Sometimes, the most innovative programs fail in the formal system, because, these are beyond the view & purview of the apex bodies. Four year Integrated Secondary Teacher Education Programs need excellent Teacher Educators who can think on their own in their respective areas. Such a combination is rarely found. In addition to this, these need to have scope for vertical mobility. Activity based, Personalized Teacher Education Programs though originated with zeal, yet need to struggle to sustain themselves in the forms envisaged.

Novel ideas die because of non-incubation. Personalized Teacher Education, Wholistic Teacher Education, Specialized Teacher Education, and even Integrated Teacher Education are rarely found because we don't have the capacity to tolerate repeated failures arising out of experimentation. One shot success is a fairy tale and not the reality of life. The society and its institutions must have the capacity to tolerate genuine mistakes committed inadvertently during the course of Research and Development practices in Teacher Education.

d. Borrowed Research Methodology

We really believe in borrowed methodology than indigenous. Indian brain is highly evolved, Indian artists, scientists, scholars, technocrats, researchers, and industrialists, as well as businessmen all are quality service oriented in their core. Not only this Indians are capable of developing their own research methods. There are a number of pioneers and pioneers in India. But, the problem is of recognition and patenting. We are more used to the foreign molecules in most of the domains whereas the India molecules wait for years together to be patented. We have more craze for the extraneous at the cost of indigenous. Our apex institutions are mad after the foreign products. The quality researches are those which follow a standard format and borrowed methods. True research is one, which helps and aids the local, grass root level problems and solves them with any method; own method.

There is no parallel to Indian heritage, ethos, values & culture. Let us Search & Re-Search and find our own selves & basic culture through our Pioneering Striving. Where are we lost? We ought to find our own selves.

e. Weak & Meek Qualitative Research Methodology

Qualitative research tends to explore a problem and develop the detail understanding of a central phenomenon. It is best suited to address a research problem in which we do not know the variable and need to explore, the literature might yield little information about the phenomenon of study, and one should understand the reality from participants through exploring. Qualitative research cannot be conducted through a-priori samples only. Sampling goes on throughout research, through various sampling techniques, such as, typical case sampling, intensity sampling, critical case sampling, sensitive case sampling, convenience sampling, primary selection and secondary selection. Qualitative Research cannot be conducted through static tools and techniques, because very often the researcher employing qualitative research methodology does not have a sound theoretical base related to the reality. Theory in fact is the product of enquiry.

Qualitative research is affected by a wonderful interaction of subject and object. The object needs to be perceived as objectively and comprehensively as feasible. One of the basic tenets of qualitative research is awareness of one's own biases. There is a need to address diversity issues, such as, gender, race, religion, ability, sexual orientation, and socio-economic status. The pursuit of knowledge should be conducted with sincerity and care. We need a strong qualitative research design and qualitative research studies.

f. Mechanization of Educational Research

Very often Essence of Educational Research is lost in its mechanics. Usually our concern is research methodology rigor than the implication of the emerging theses. A large majority of the Research Scholars use readymade tools, compatible or non-compatible. Functional analysis cutting across hundreds of doctoral viva-voce suggests that we have grossly failed to Philosophize in Education. Then what are the Ph.D. in Education degrees representatives of. Convocation without invocation are valueless. The painful scenario finds expression as follows:

- Merely the psycho-meters are super imposed on the natural reality; which in fact is very complex.
- Numbers are too meek to represent the social reality.
- How so ever developed, the Scales are too limited to be substance sensitive.

- Rarely the characteristics of the measuring tools are established.
- There is rare correspondence amongst Research Problem, Methodology and Emerging Theses.
- We create countless problems for the field while addressing a Research Problem, rarely the solution is arrived at.

g. Biased Research

Any Research should never and ever be biased. Research bias is making some alterations or changing the findings to satisfy certain predictions or interest groups. Scientific and Technological researches are objective in nature; hence the researcher bias would be less. But in social science research as they deal with human beings in the research and go subjectively, hence the influence of the researcher is possible to some extent. The Investigator should attempt by all means to minimize the biasness.

h. Research – a Power Gimmick

How genuine is the financial support for research is a big question. The Scholars need to be very sensitive to that at times there are median tendencies to capture and exploit their expertise for the vested gains. The present society seems to have become over humanistic & over pro-nature lending us money at our door steps, that too, through repeated and recursive calls. Earlier the state of the borrowers was miserable, but now, there is reversal. Every researcher should address a question to the self, that, whether my expertise is employed for creation, construction and universe development connection. At times a highly evolved brain can be highly devastating if the energy flow is not well channelized.

i. Lack of Research Synthesis & Trend Analysis

Research has been done in various areas, sub areas, on different dimensions, at different points of time. But a synthetic view of a research of particular main area is very important, a holistic view is very important, but it is less seen in the research field. Research synthesis is the practice of systematically distilling and integrating data from a variety of sources in order to draw more reliable conclusions about a given question or topic. It is required in the research for having a complete view of the given area and its research, growth and development.

Trend analysis means looking at how a potential driver of change has developed over time, and how it is likely to develop in the future. Rational analysis of development patterns provides a far more reliable basis for speculation and prediction than reliance on mere intuition. Several trends can be combined to picture a possible future for the sector of interest, such as schooling. Trend analysis does not predict what the future will look like; it becomes a powerful tool for strategic planning by creating plausible, detailed pictures of what the future might look like. In scenario development, trend analysis can be a powerful tool for developing robust content, content that can erase prejudices and open minds by exploring and combining far-reaching developments that might affect the environment and conditions in which education takes place.

j. Research Ethics

When one thinks of ethics, it comes to one's mind about morals and norms decided by the society in general. One gets the sense of morals from the childhood i.e. from family, school and society and throughout life from different stages of life. Research ethics is important to advance and elevate the aims of the research, accountability to the society and to build the public support for funding the research projects. According to Shamoo and Resnik (2009), the ethics in research should be related to few categories namely,

Honesty: Strive for honesty in all scientific communications. Honestly report data, results, methods and procedures, and publication status. Do not fabricate, falsify, or misrepresent data. Do not deceive colleagues, granting agencies, or the public.

Objectivity: Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personnel decisions, grant writing, expert testimony, and other aspects of research where objectivity is expected or required. Avoid or minimize bias or self-deception. Disclose personal or financial interests that may affect research.

Integrity: Keep your promises and agreements; act with sincerity; strive for consistency of thought and action.

Carefulness: Avoid careless errors and negligence; carefully and critically examine your own work and the work of your peers. Keep good records of research activities, such as data collection, research design, and correspondence with agencies or journals.

Openness: Share data, results, ideas, tools, resources. Be open to criticism and new ideas.

Respect for Intellectual property: Honour patents, copyrights, and other forms of intellectual property. Do not use unpublished data, methods, or results without permission. Give credit where credit is due. Give proper acknowledgement or credit for all contributions to research. Never plagiarize

Confidentiality: Protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records.

Responsible Publication: Publish in order to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication.

Responsible mentoring: Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.

Respect for the colleagues: Respect your colleagues and treat them fairly.

Social Responsibility: Strive to promote social good and prevent or mitigate social harms through research, public education, and advocacy.

Competence: Maintain and improve your own professional competence and expertise through lifelong education and learning; take steps to promote competence in science as a whole.

Non-Discrimination: Avoid discrimination against colleagues or students on the basis of sex, race, ethnicity, or other factors that are not related to their scientific competence and integrity.

Legality: Know and obey relevant laws and institutional and governmental policies.

Animal Care: Show proper respect and care for animals when using them in research. Do not conduct unnecessary or poorly designed animal experiments.

Human care protection: When conducting research on human subjects, minimize harms and risks and maximize benefits; respect human dignity, privacy, and autonomy; take special precautions with vulnerable populations; and strive to distribute the benefits and burdens of research fairly.

Ethical Practices should be throughout the research process. In all the steps of the research process one needs to engage in ethical practices. Practicing ethics is a complex matter that involves much more than merely following guidelines such as those from professional associations or conforming to guidelines for campus institutional review boards.

Ethics should become a more pervasive idea stretching from the origins of a research study to its final completion and distribution. Ethics should be a primary consideration rather than an afterthought, and it should be at the forefront of the research agenda.

3. Concluding Remarks

Research methodology is the heart of the research. Educational research is very often blamed to be descriptive and evaluative. There are wide gaps amongst developmental challenges and educational research determinism. It's concerned with conditions or relationships that exists, opinions that are held processes that are going on effects that are evident or trends that are developing. There is a need to evolve research quality indicators as innovations in teacher education and research in teacher education are very rare.

The society and its institutions must have the capacity to tolerate authentic errors that might occur unknowingly. The research is one that assists in sorting out local, ground root level problems and solves them with any method that is handy. So far as research ethics is considered, it's very important to advance and upgrade the aims of the research,

accountability to the society and our social life. Ethical practices should be throughout the research process. Ethics in research and development of teacher education must be a primary consideration rather than an afterthought, and it should be at the fore front of the research agenda.

Check your progress:

- Which are the various methodological issues of Research in Teacher Education?

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- Stereotyped Educational Research does not lead for the development. Explain.

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- Why innovations in research are suppressed?

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- What do you mean by Research Synthesis and Trend Analysis? Discuss the importance.

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- Which are the ethical issues of educational research?

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