

# **PERCEPTION OF TEACHER EDUCATORS ON QUALITY OF EDUCATIONAL RESEARCH IN KERALA**

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**MASTER OF EDUCATION**

*by*

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2019 - 2021**

## **DECLARATION**

I, **SHEBEEHA SHAMSHAD M**, do hereby declare that this dissertation entitled, **“PERCEPTION OF TEACHER EDUCATORS ON QUALITY OF EDUCATIONAL RESEARCH IN KERALA”** is a record of original research work done by me under the supervision and guidance of **Dr. K. VIJAYAKUMARI**, Associate Professor in Education, Farook Training College, Kozhikode and has not been submitted by me in this university or any other university for the award of any Degree/Fellowship or Recognition before.

Farook Training College

Date: 25-07-2021

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## **CERTIFICATE**

I, **Dr. K. Vijayakumari**, do hereby certify that this dissertation entitled “**PERCEPTION OF TEACHER EDUCATORS ON QUALITY OF EDUCATIONAL RESEARCH IN KERALA**” is a record of bonafide study and research carried out by **SHEBEEHA SHAMSHAD M**, of M.Ed. Programme (2019-2021) under my supervision and guidance and has not been submitted by her for the award of a Degree, Diploma, Title or Recognition before.

Farook Training College  
Date: 25-07-2021

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## **CHAPTER I**

# **INTRODUCTION**

- 
- ❖ **Introduction of the Study**
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## **INTRODUCTION**

Research is a creative work that is undertaken systematically in order to increase the repertoire of knowledge of individuals and society. It helps to reach new applications of the theories and search for new questions and their solutions leading to new theories. Research is an art of scientific exploration and discovery with different points of view. Research in any field is important and the scope of educational research is as important as in the case of science and technology for the development of society and the nation. Educational research is the candlelight for society to analyze its problems and through new, effective strategies and knowledge arrive at solutions to these problems. Education is the backbone of society and the effort that society takes to update/improve the educational process reflects in its development. This happens when the research becomes objective-based, valid, reliable, and properly disseminated.

Quality of research is always a vital area for debate among the academic community. It has long been a theme of interest, debate and in some cases, a dispute among academics and professionals. Many studies are conducted in the area of quality standards in research under various disciplines. Gersten, Baker and Lloyd (2000) have commented that it is a hot topic in multidisciplinary fields like Health, Education and Social Welfare. Accurate and trustworthy knowledge will be generated only through quality research. To ensure the quality of research, it should be done systematically with commitment and goal orientation. Proper assessment of the research process and the results arrived at is an important element in determining the quality of research. Assessment is the process of

passing human judgment and quantitative score to the work done determining its quality usually ranging from poor to outstanding.

Among the stakeholders of research in education, academicians and policy makers have much more benefits. For academicians, it helps to enhance their professionalism which in turn provides an improvement in the educational process. For the policymakers, it improves both the efficiency and effectiveness of policy and practice by providing attested information to enhance the quality and cost-effectiveness of policies. Okonofua (2008) highlights, the need for educational research by giving three key reasons: The first reason is that without research, teaching will be old-fashioned, monotonous, and static, the second reason being the help research does to the university for providing special services to its immediate community. The third reason highlights the contributions of research in the growth and development of the nation. Thus, the achievement and maintenance of quality of research is the top priority in any field. The core of this quality debate has been the impossibility to assess the quality in every field of knowledge by applying one single standardized criterion.

Johnson and Stafford (1973) commented that over the past three decades, prevailing academic concerns for educational development have been extended to incorporate both quality and quantity of educational research because educational development has a widely observed significant association with quality and quantity. However, balancing quantity and quality in educational research is not a simple task. A well balanced educational development cannot be approached with a narrow minded perspective either on quality or quantity.

The purpose of research is to inform action. Therefore, the study should seek to contextualize its findings within the larger body of research. Research must always be of high quality in order to produce knowledge that is applicable outside of the research setting. According to a famous Hudson Maxim, “All progress is born of inquiry. Doubt is often better than overconfidence, for it leads to inquiry, and inquiry leads to invention”. It brings out the purpose of research, an increased amount of which makes the progress possible (Maxim, 2018).

Quality research ensures the scientific approach to all aspects of design of the study . It considers the judgment regarding the compatibility between the methods and questions, selection of participants, measurement of outcomes, protection against systematic bias, non-systematic bias and inferential error (Boaz & Ashby, 2003; Lohr, 2004; Shavelson & Towne, 2002).

### **Need and Significance of The Study**

Educational research is an integral part of educational development and it leads to the overall progress of every nation. The research process involves identifying, locating, assessing, and analyzing the information that need to support the research question, and then developing and expressing ideas. The researches that are being undertaken become the backbone of the education system which in turn results in a better tomorrow. Every day new research is being undertaken in every aspect of life. Findings of research help to identify the demerit, strength and weakness of various aspects and the valid recommendations are expected to improve the process.

It is a fact that a large number of theses and research papers are being published related to various aspects of education with different research designs and approaches conducted in India and other countries. The situation is not different in Kerala also. A study by Prasheeda (2018) on research at PhD level shows that 462 doctoral theses are produced from the three universities in Kerala, viz., Kerala University, University of Calicut and Mahatma Gandhi University within the period of 45 years -1970 to 2015. Recently the number of researchers has increased drastically, but one cannot observe as much improvement in the education system as expected through these studies. There is definitely a huge quantitative improvement, but the question arises on the quality of research. Many have identified that the improvement in quality of research compared to quantity has become negligible (Gersten, Baker & Lloyd, 2000; Spooner & Browder, 2003).

University Grants Commission (UGC) has given primary concern to promote excellence in the quality of research rather than the quantity. These remarks leave in the mind the question that what should be the main criteria of a good thesis? According to Koul (2008), research is the most successful approach to discover the truth and it is a combination of experience and reasoning. Various research paradigms have different criteria for ontology and epistemology in order to maintain quality standards. It is clear that it will be difficult, if practicable; to prescribe the criteria to be satisfied by all researches but in order to keep the quality of educational research a general framework accepted by academicians is necessary.

A research study should include a description of the population of interest, an explanation of the process used to select and gather data on study subjects, definitions of key variables and concepts, descriptive statistics for main variables, and a description of the analytic techniques. Work done in the field constructs the foundation for the research and determines its course and value. Inaccurate findings may lead to imprecise applications and end in further fallacies in new scientific knowledge that researchers constructed. It is crucial to critically evaluate existing scientific evidence. It is important to know which information can be regarded as plausible. So what are the criteria to determine whether a result can be trusted? It is the quality, not the quantity, of research. There is no exaggeration in saying that the theses and dissertations take their shelter in the shelves. If it is to be fruitful, they are to be properly disseminated to reach the stakeholders for which quality is the primary concern.

The integral component of any research work rests upon the research scholars and the supervisors. They are just like the sailors of the ship who can direct the ship the way and in the direction they want. As per the comment of Anjana (2008) there are mainly two major factors responsible for the deterioration of research work. Firstly, research scholars focus on acquisition of a certificate rather than knowledge. Secondly, the research supervisors are not paying due attention to their scholars, the reasons may be many, the major one being lack of awareness on recent advances and their applications in research.

The major responsibility rests with the research scholars as a Ph.D programme is their project and they should make every effort with regard to its quality. They are the main directors of their work, so the way they think about the

topic is bound to affect their research work. Thus, it was of utter importance to take into consideration the view-points or perspectives of both the participants as their opinion or thinking about a particular topic which determines the way it will be observed, analyzed, conducted and implemented. The perception of both the research scholars and the supervising teachers toward the research criteria for producing the quality of research is important.

Studies on perception on research in education are conducted by many (Winter, Griffiths & Green, 2000; Boaz & Ashby, 2003; Macnab & Thomas, 2007; Groothuijsen, Bronkhorst, Prins & Kuiper, 2019) but that on the quality concerns are rare. The findings of the study on the perception of teacher educators involved in the process of research about the quality of educational research will contribute to the theoretical and empirical aspects of education.

### **Statement of the Problem**

The study analyzes the quality of educational research undertaken by researchers in various universities in Kerala viz., Kerala University, Mahatma Gandhi University, University of Calicut and Kannur University as perceived by teacher educators engaged with research. Thus the problem is stated as “PERCEPTION OF TEACHER EDUCATORS ON QUALITY OF EDUCATIONAL RESEARCH IN KERALA”.

### **Definition of Key Terms**

#### **Perception**

The dictionary meaning of perception is organisation, identification and interpretation of sensory information (Britannica Encyclopaedia, 2003). In the present study perception means, the interpretation of teacher educators on research

in education based on certain quality criteria measured through a Scale on perception about the quality criteria of researches in Education.

### **Teacher Educators**

The term teacher educators refers to both those who educate prospective teachers and those who educate practicing teachers, that is, those who initiate, guide, and support teacher learning across the lifespan (Evan, 2012). In this study, teacher educators are the teaching faculties of teacher education colleges in Kerala or education departments in Universities of Kerala.

### **Educational Research**

Best and Kahn (1993) define educational research as that activity which is directed towards development of a science of behaviour in educational situations. In this study the term educational research means the research in education at Ph.D level.

### **Research Questions**

The research questions answered in the study are,

1. What is the perception of teacher educators on the quality of educational research in Kerala?
2. What are the suggestions of teacher educators on essential quality criteria for educational research in Kerala?
3. What are the suggestions of teacher educators to improve the quality of research in Kerala?

### **Objectives of the Study**

The major objectives of the study are,

1. To analyse the perception of teacher educators on the quality of educational research in Kerala.
  - a) To analyse the perception of educational research adjudicators on the quality of educational research in Kerala.
  - b) To analyse the perception of research supervisors on the quality of educational research in Kerala.
  - c) To analyse the perception of researchers among teacher educators on the quality of educational research in Kerala.
2. To summarise the suggestions of teacher educators for quality enhancement in researches
3. To develop a quality criteria for scientific research in education

### **Methodology**

The present study tries to know the perception of teacher educators on the quality of educational research from the universities of Kerala. This study adopted qualitative as well as quantitative methods to answer the research questions.

### **Participants**

The study used non probability sampling technique to select teacher educators who are adjudicators and/ supervisors of educational research in Kerala and researchers among teacher educators from the four universities in Kerala viz., Kerala University, University of Calicut, M G University and Kannur University for analysing the perception on quality of educational researches in Kerala. The



participants include 8 adjudicators, 53 supervising teachers and 47 research scholars (Total 108) from the four universities in Kerala.

### **Tools and Techniques**

A Scale on perception about quality of educational research was prepared by the researcher and was used for data collection. Interview was done with teacher educators who are adjudicators of the theses under universities of Kerala.

### **Analysis of data**

Analysis of the data collected through the interview was done through proper transcribing and coding. Percentage analysis was used for analysing the perception of teacher educators on quality of educational research with respect to each criterion listed. The suggestions to improve the quality were also coded under different categories.

### **Scope and Limitations of the Study**

In the present study investigator tries to know the perception of teacher educators on quality of educational research in Kerala. The study gives great opportunity to know more about research. Moreover, the investigator interviewed eight adjudicators from different universities for providing suggestions on better practice for quality of research, especially educational research and the investigator collected the opinion of supervising teachers and research scholars on the quality of educational research including different aspects of research area. It helps to get deeper insight to the quality concerns in educational research. The investigator hopes that the present study will be helpful to the new researchers for knowing the present condition and also for bringing improvement in educational research.

Some of the limitations of the study are that the interview was done online mode and data was collected through Google form due to the Covid 19 pandemic. Also only 08 adjudicators were interviewed for validating the scale. The title of the study warrants the population as teacher educators, but the study was conducted on teacher educators at graduate and postgraduate levels, but the teacher educators at lower levels are not included. A focus group discussion on the criteria of quality in educational research and their perception on quality of educational research were planned but could not perform due to the busy schedule of the experts.

### **Organisation of the Report**

**Chapter 1:** This chapter contains a brief introduction of the problem, need and significance of the study, statement of the problem, definition of key terms, research questions, objectives, methodology and scope and limitations of the study.

**Chapter 2:** This chapter gives a theoretical overview of quality of research and the review of related studies related to educational research.

**Chapter 3:** In this chapter, the Investigator discusses the methodology of the study in detail with description of objectives, tool used for data collection, sample selected for the study, data collection procedure and data analysis.

**Chapter 4:** This chapter describes preliminary analysis, interpretation of data, discussion, comparison and suggestions.

**Chapter 5:** This chapter contains summary of the study, educational implications of the study and suggestions for further research.

## **CHAPTER II**

# **REVIEW OF RELATED LITERATURE**

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- ❖ **Theoretical overview**
  - ❖ **Studies Related to Quality of  
Educational Research**
  - ❖ **Conclusion**
-

## **REVIEW OF RELATED LITERATURE**

The review of related studies involves locating, studying and evaluating reports of relevant researches and articles, published research abstracts, journals, encyclopaedias etc. The researcher needs to acquire up to date information about what has been thought and done in the particular area. The researcher draws maximum benefits from the previous investigations, utilizes the previous findings, takes many hints from designs and procedures of previous researchers and formulates an outline for future research. The review of related studies provides insight into the methods, measures etc. employed by others in the particular area. It provides ideas, theories, explanation, hypotheses of research valuable in formulating and studying the problem at hand.

Research is the process of solving problems and finding facts in an organized way. Research is done by applying what is known and building on it. Additional knowledge can be discovered by proving existing theories and by trying to better explain observations. In this chapter the researcher summarizes the current state of knowledge of the topic. It creates an understanding of the topic by discussing the findings presented in recent research papers. A review of the related literature must precede any well planned research study. Studies on quality of research were conducted decades before.

Review of related literature has been categorized as follows:

1. Theoretical Overview
2. Studies Related to Quality of Educational Research

## **Theoretical Overview**

According to Waltz and Bansell (1981), research is a systematic, formal, rigorous and precise process employed to gain solutions to problems or to discover and interpret new facts and relationships. Research employs qualitative, quantitative and/or mixed methods depending on the research question being answered. Also there exist different types of data, qualitative and quantitative. Quality research provides evidence that is robust, ethical, stands up to scrutiny and can be capable for theory making. It should adhere to principles of professionalism, transparency, accountability and audit ability.

MC Kinney (2021) explained responsible research as an essential element of quality of research in education with a strong ethical nature. The basic principles of responsible research as suggested by him are:

1. The research must be based on need
2. It should have some impact on society
3. It should be for social justice, equity and sustainability
4. It should ensure social welfare, cohesion, cultural enrichment and quality of life
5. It should focus on under privileged group
6. It should be meaningful, timely, useful and accessible

## **Studies Related to Quality of Educational Research**

Yokus and Akdag (2019) in a case study on identifying quality criteria of a scientific research adopted by the academic community put forward a realistic viewpoint based on academicians' views about what the quality of scientific publication means and to provide criteria / recommendations for determining the

quality of a scientific research. By analyzing data from interview, and content analysis they have coded eight themes in total including appropriateness of abstract, contribution to literature, originality, identification of scope and focus, scientific, comprehensive reporting and ethics.

Anjana (2018) reported in a study on quality of research that, in today's globalized world, the quality of research is the highest priority for any academic community. It is a subject of great debate in both academics and professionals. This debate is due, in part, to the lack of consensus on the specific standards for assessing the quality of research. Research quality assessment is also problematic because no universal and unambiguous criterion for quality exists. For academic research in particular, this is even more complex. The growth of information and communication technology has made it possible for the researchers to access a vast array of information in the form of e-resources in an easy and cost effective way. The study used research quality criteria rating scale (RCQRS) developed for finding the quality of research. Eight criteria were identified for quality of research, in sequential order, which are as follows: citations in journals, research papers, books and theses, journal' impact factor, peer review, criteria of selection of expert referee in the field by the editorial board, standardized research reporting framework, ranking of journal, after publication dialogue and discourse and journal in first quartile of its area. Of these eight criteria, the top three criteria identified by the teachers and research scholars were (1) citation, (2) journal impact factor and (3) peer review.

Ochsner, Hug and Daniel (2016) in their study humanities scholars' conceptions of research quality presented a project in which humanities scholars'

conceptions of research quality. The approach involved the scholars of a given discipline and sought to identify agreed-upon concepts of quality. The study revealed both the opportunities and limitations of research quality assessment in the humanities: A research assessment by means of quality criteria presented opportunities to make visible and evaluate humanities research. The study suggested a framework for developing quality criteria for the humanities that comprises a bottom-up approach, a sound measurement approach, the explication of the humanities scholars' notions of quality and the principle of consensus. They implemented this framework using the repertory grid technique to explicate the scholars' implicit knowledge of quality, thereby making visible the scholars' notions of quality and generating a first catalogue of quality criteria. It was found that humanities scholars preferred a qualitative approach to research evaluation. The Delphi method made it possible to find a consensus on quality criteria. They formulated opportunities for and limitations of research assessments in the humanities. They were: scholarly exchange, innovation and originality, productivity, rigour, fostering cultural memory, recognition, reflection and criticism, continuity and continuation, impact on research community, relation to and impact on society, variety of research, connection to other research, openness to ideas and persons, self-management independence, scholarship erudition; passion and enthusiasm, vision of future research, connection between research and teaching, scholarship of teaching and relevance.

Martensson, Uno, Wallin, Zander. and Nilsson (2016) conducted a study "Evaluating Research: A Multidisciplinary Approach to Assessing Research Practice and Quality" for Sweden in which they presented a general, generic and

multidisciplinary framework for identifying what the quality of research practice might be, and how that model might be used to evaluate research quality. A comprehensive quality model including 32 concepts based on the four main areas was developed for describing quality issues of research practice, where the model of research as a phenomenon was used to define the quality concepts. These were:

1. Credible- Rigorous, internally valid, reliable, contextual, consistent, coherent and transparent.
2. Contributory- original idea, original procedure, original result, relevant, relevant research idea, applicable result, current idea and generalization.
3. Communicable- Consumable, structured, understandable, readable, accessible and searchable.
4. Conforming- Aligned with regulations, ethical, morally justifiable, open, equal opportunities and sustainable.

Belcher, Rasmussen, Kemshaw, and Zornes (2015) in their study defining and assessing research quality in a transdisciplinary context comprehensively searched highly relevant journals and sought articles that review, critique and discuss, and propose principles, criteria, indicators, and measures for the evaluation of quality relevant to transdisciplinary research (TDR). Articles were selected which explicitly focus on the meaning of TDR. They put forward four criteria of TDR Quality Assessment Framework. They are:

Relevance – The importance, significance, and usefulness of the research problem, objectives, processes, and findings to the problem context.

Credibility – This includes clear demonstration of the adequacy of the data and the



methods used to procure the data including clearly presented and logical interpretation of findings.

Legitimacy – The research process is perceived as fair and ethical.

Effectiveness – The research generates knowledge and stimulates actions that address the problem and contribute to solutions and innovations.

O'Brien, Harris, Beckman, Reed and Cook (2014) in their study on standards for reporting qualitative research found that SRQR consists of 21 items including title, abstract, problem formulation, purpose or research question, qualitative approach and research paradigm, researcher characteristic and reflexivity, context, sampling strategy, ethical issues pertaining to human subjects, data collection methods, data collection instruments and technologies, units of study, data processing, data analysis, techniques to enhance trustworthiness, synthesis and interpretation, links to empirical data, limitations, conflicts of interest, funding and finally integration with prior work, implications, transferability, and contributions to the field.

Ochsner, Hug and Daniel (2012) conducted a study, four types of research in the humanities: setting the stage for research quality criteria in the humanities. The study presents humanities scholars' conceptions of research and subjective notions of quality in the three disciplines of German literature studies, English literature studies, and art history. Their findings include continuity, innovation and originality, rigour, reflection and criticism, scientific exchange, inspiration, connection to society, diversity and variety, topicality, openness and integration, autonomy, scholarship, connection between teaching and research, intrinsic motivation and productivity.

Northcote (2012) examined a number of approaches used by researchers in Australia to evaluate qualitative studies in education. Study highlighted the need of separated criteria for quantitative research and identified five guiding principles and criteria used to evaluate the qualitative of research; like contributory in advancing wider knowledge or understanding about policy, practice, theory or a particular substantive field; rigor in conduct through the systematic and transparent collection, analysis and interpretation of qualitative data; defensible in design by providing a research strategy that can address the evaluative questions posed; credible in claim through offering well-founded and plausible arguments about the significance of the evidence generated; and affective in nature by acknowledging the excitement associated with research discoveries, the emotional involvement of the participants and the enthusiasm of the researcher.

Lamont (2009) in a study examined the decision making process of interdisciplinary academic panels who were tasked with awarding prestigious US fellowships. On the basis of an empirical study of peer review in multi-disciplinary humanities and social science grant competitions, it was concluded that peer evaluation is not based on stable comparables, and that various completion criteria with multiple meanings are used to assess academic work. In a vast and multi-faceted universe of academic evaluation, concepts such as originality and quality are defined in multitude ways. It takes a process of group discussion for panel members to reach an agreement about which proposal is excellent and which is not. This situation is aggravated when the panels are set up by scholars coming from different disciplines, as each discipline had its own definition of what they meant by these criteria and gave them different weights.

According to the results, six criteria that allowed panelists to recognize an excellent work are: clarity, quality, originality, significance, methodology and feasibility.

Jarwal, Andrew and King (2009) conducted a study measuring research quality using the journal impact factor, citations and ‘Ranked Journals’: blunt instruments or inspired metrics and examined whether the bibliometric indicators— Journal impact factor, Citations per paper and Excellence in Research for Australia (ERA) initiative list of ‘ranked journals’—can predict the quality of individual research articles as assessed by international experts, both overall and within broad disciplinary groupings. The analysis was based on data obtained from a Mock Research Quality Framework (RQF) exercise conducted by Monash University during 2006–07 in which external assessors rated research articles for their quality using a five-point scale. Although a significant relationship existed between all three bibliometric variables and the overall Mock RQF assessor quality scores, only a relatively small amount of the variance (generally < 20 percent) could be explained. There was some evidence that the relationship was stronger within some disciplinary groupings than others. The findings suggested that caution should be exercised when using these indicators as proxies for research quality.

Macnab and Thomas (2007) in their study quality in Research and the Significance of Community Assessment and Peer Review: Education’s Idiosyncrasy, examined the most widely used and trusted form of quality criteria, namely peer review, in educational research context. They noted that publication in peer-reviewed journals is regarded as a pointer to the quality and status of

academic work and is the preferred means for reaching a decision about the quality of research. In peer review, there is an assumption that expert assessors will dispassionately be able to make reasonable assessments about quality. They suggested that the focus in peer review is more productively put on the processes that enable honesty, disinterestedness, thoroughness and so forth, examining how it operates to make possible (or in the worst cases to inhibit) the production of good research. They suggested that 'good research' is thought of less in terms of individual quality and more in collective terms: a community of inquiry in which there is a vigorous dialectic.

Boaz and Ashby (2003) in their study *Fit for Purpose? Assessing Research Quality for Evidence Based Policy and Practice* described the structures and procedures to support and promote good quality research as follows:

- ❖ Published standards and checklists including sections in research methods, textbooks, 'how to' guides, funders' requirements etc.
- ❖ Peer review of research proposals. At this stage proposals are likely to be sent to reviewers and discussed by a commissioning group of experts. In some fields of research, agreed projects can then be subject to the scrutiny of an ethics committee before any fieldwork commences.
- ❖ During the research process, researchers should often seek advice from their peers and potential research users either informally or through a formal steering group or advisory committee.
- ❖ After research is completed, publication in peer review is to be done and then assesses the quality of studies prepared for formal publication in books and journals.

Norris and Oppenheim (2003) in their study citation counts and the Research Assessment Exercise conducted a research on the correlation between citation counts and an official 2001 assessment of research excellence in UK university archaeology departments. They found a high correlation between the 2001 Research Assessment Exercise (RAE) scores obtained by archaeology departments and a citation count of the academics in those departments. The UK Higher Education Funding Councils through academic (and in some cases industrial) peers carry out a periodic RAE of the published work of submitting departments over a given period of time so as to make a qualitative judgement of the research output. The departments are also assessed by other criteria including the number of higher degree students they have, the amount of research income they have received and a general commentary on their current and future research programmes. University departments are then ranked and consequently funded by the central government for their research activities, based upon the score they achieved. On the basis of their analysis of the RAE, they recommended that citation analysis should be employed as the primary procedure for the initial tool of assessment. It should not, however, be the only assessment tool for RAE. Peer review of the written evidence, consideration of other factors and the careful scrutiny of marginal cases must complement the process.

The National Research Council (2002) has described standards that shape scientific understanding and are frequently used to frame the discourse on the quality of research. This has led to the term ‘scientifically based research’, frequently mentioned standards include the following:

- ❖ To pose a significant question that can be investigated empirically and

that contributes to the knowledge base.

- ❖ To test questions that is linked to relevant theory.
- ❖ To apply methods that best address the research questions of interest.
- ❖ To base research on clear chains of inferential reasoning supported and justified by a complete coverage of the relevant literature.
- ❖ To provide necessary information to reproduce or replicate the study.
- ❖ To ensure the study design, methods and procedure that are sufficiently transparent along with independent, balanced and objective approach to the research.
- ❖ To provide sufficient description of the sample, intervention and comparison groups.
- ❖ To appropriate reliable conceptualization and measurement of variables.
- ❖ To evaluate alternative explanations for findings.
- ❖ To assess the possible impact of systematic bias.
- ❖ To submit research to a peer-review process.
- ❖ To adhere to quality standards for reporting (i.e. clear, cogent, and complete).

Winter, Griffiths and Green (2000) in their study the 'Academic' Qualities of Practice: what are the criteria for a practice-based PhD? Described the standards for research work as follows:

- ❖ Conceptual clarity in design, conduct and analysis of the research.
- ❖ Intellectual appreciation of how underlying theories relate to issues in the research.
- ❖ Engagement with literature.

- ❖ Grasp of methodology.
- ❖ Coherence of argument.
- ❖ Presentation of the thesis and compliance with academic protocols.

Hemlin (1993) in scientific quality in the eyes of the scientist: a questionnaire study, studied Swedish university scientists' quality conceptions of scientific quality and stated that scientific quality could be characterized by these seven factors:

- ❖ Quality indicators: 'objective' (e.g. frequency of citations) or 'subjective' ones (e.g. peer reviews).
- ❖ Research effort (research 'size').
- ❖ Researcher (e.g. personality and skills).
- ❖ Research environment.
- ❖ Intra- and Extra-scientific effects (e.g. contribution to knowledge).
- ❖ Research policy and organization (e.g. society and scientist's policy).
- ❖ Research financing (e.g. public or private).

The author emphasized that "these seven factors interact and form a framework in which different meanings of the concept 'scientific quality' may be traced" (1993, p.27) and that they varied by discipline.

### **Conclusion**

The review of related literature shows that several studies have been conducted for setting up various criteria for assessing the quality of research in India and abroad across various disciplines. Some of these studies have highlighted the problems with the criteria, assessing the quality of research and lack of essential research information. However, no study is found to be reported

on quality criteria from teachers and research scholars' point of view. Therefore, it becomes necessary to conduct an in-depth study on teachers and research scholars' view on the criteria for the quality of research. Their view on criteria will have a direct impact on their research efforts which in turn will affect the quality of their research. Thus it becomes utmost important to know the perception of quality of research in education based on the criteria.



## **CHAPTER III**

# **METHODOLOGY**

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- ❖ **Design of the Study**
  - ❖ **Techniques and Instruments used**
  - ❖ **Participants**
  - ❖ **Data collection procedure**
  - ❖ **Techniques Used for Analysis of Data**
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## **METHODOLOGY**

Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques (Qambrani, 2015).

In the present study on Perception of teacher educators on quality of educational research under the Universities in Kerala a list of quality criteria is formed and the perception of teacher educators about quality of research in education in Kerala is analysed based on the listed criteria. The details of the methods followed in the study are described under the following sections,

- A. Design of the study
- B. Techniques and instruments used
- C. Participants
- D. Data collection procedure
- E. Techniques used for analysis of data

### **Design of the Study**

The study used a qualitative approach to find out the criteria of good research in education through interview and the perception of teacher educators about the quality of research in education carried out in Kerala based on these criteria was collected through a perception scale for which survey method was used. Therefore the study followed a mixed research design in order to answer the research questions.

## **Techniques and Instruments Used**

The quality and appropriateness of the method and instruments used for a study determines its validity. The study tried to derive standard criteria for quality research and to explore the perception of teacher educators on the quality of educational research in Kerala.

In order to collect relevant data the researcher conducted an interview and administered a perception scale on quality of research, the details of which are given below.

### **Interview**

A semi structured interview was done with adjudicators of research in education under various universities of Kerala. Before the interview, the investigator made an extensive study on quality criteria of educational research and listed out the criteria suggested in the studies. An interview schedule was prepared based on these criteria with more focus on open ended questions. The responses of the interviewees are properly recorded and then coding of the responses was done based on the similarity in responses. The interview schedule is appended as Appendix 1.

### **Perception Scale on Quality of Educational Research**

Based on the criteria identified through review of studies and that derived through the interview with adjudicators, a perception scale was prepared for knowing the perception of teacher educators about the researches in education with reference to the criteria identified.

The perception scale contains 19 items which indicate the quality of research in education. For each item a rating from high to low (Three point) is

given based on the nature of the quality assessed. The respondent has to mark his/her response in the respective level. The items are based on the relevance of the study, approach and method, title, review of related literature, objectives, design, sample size, analytical techniques, interpretation, implications, scope for further research, references and the framework of reporting. Items to know the percentage of studies with respect to each quality as they perceive were included in the scale. An open ended question to get suggestions for improving quality of research in education was also included.

### **Validity and Reliability**

The perception scale was formed including the criteria confirmed through interviews with experts in the field and hence the scale is expected to be valid and reliable to measure the quality of research in education.

The perception scale is given as Appendix II

### **Participants**

Population under study is teacher educators involved in research processes in Kerala (University of Kerala, University of Calicut, University of Kannur and MG University). The population includes various categories like those who are adjudicators of thesis, supervisors and doing research in education. A sample of 200 teacher educators belonging to the above three categories were proposed for the purpose of collection of data, for interview and survey. The participant selection was done through non-probability sampling technique. Adjudicators for the purpose of interview were selected purposefully based on their availability and cooperation. The supervising teachers were selected for the study randomly but

the research scholars for the survey were selected through snowball sampling. The details of the participants are given in table 1

Table 1

*Details of the Participants of the Study*

Sl.No	Category	University	Number	TOTAL
1.	Adjudicators	Inside Kerala	8	10
		Outside Kerala	2	
2.	Supervising teachers	Kerala university	33	108
		Calicut university	29	
		MG university	25	
		Kannur university	21	
		Kerala university	24	
		Calicut university	21	
3.	Research scholars	MG university	17	82
		Kannur university	18	
TOTAL				200

### **Data Collection Procedure**

As a first step, the investigator collected a list of adjudicators both inside and outside Kerala from the faculties of various institutions. Then they were contacted through phone and requested for their kind cooperation. The purpose of the study was explained to them and sought willingness for the interview. After getting their consent, a convenient date and time was fixed for each interviewee. Interview was done through Google meet and the process was recorded with their permission. The responses were coded as per the nature of the responses and the

relevant points were accumulated to prepare the perception scale. After developing the scale, the investigator collected email id of the teacher educators who are supervising teachers by searching the sites of the universities and sent the perception scale as google form in the respective email address. A request for voluntary participation was included in the mail. The privacy of the responses was assured and the purpose of the study was mentioned in the description part of the Google form. To get data from teacher educators who are doing research, the investigator contacted some research scholars personally and with their assistance located teacher educators doing research in various universities in Kerala. The identified teacher educators suggested the others and the process continued.

As data was collected through Google form, the responses were consolidated automatically in excel format. As the items were given as required, no omissions in the responses were there, but the rate of response was not as much as expected and the final sample includes 8 adjudicators, 53 supervisors and 47 research scholars. The description of the final sample is presented as Table 2.

Table 2

*Details of the final sample*

Sl.no	Category	University	Number	TOTAL
1.	Adjudicators	Inside Kerala	7	08
		Outside Kerala	1	
2.	Supervising teachers	Kerala university	17	53
		Calicut university	15	
		MG university	12	
		Kannur university	9	
		Kerala university	13	
		Calicut university	15	
3.	Research scholars	MG university	9	47
		Kannur university	10	
TOTAL				108

### **Techniques Used for Analysis of Data**

The first part of the study is qualitative in nature and hence the analysis of the data collected was done qualitatively. For this, the responses in the interview with adjudicators were analyzed and properly coded according to the nature of information and categorized under different heads. The second part of the study is a survey on the perception of teacher educators on the quality of educational research in Kerala based on the criteria given in the perception scale. The rating on a three-point scale was done for each criterion and the percentage of researches was also marked for each item. Percentage analysis was done to arrive at conclusion.

**ANALYSIS AND  
INTERPRETATION  
OF DATA**

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❖ **Introduction**

❖ **Analysis of information**

**collected through interview**

❖ **Analysis of data collected**

**through the perception scale**

❖ **Conclusion**

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## **ANALYSIS AND INTERPRETATION OF DATA**

Data analysis is the process of extracting information from data. It is the process of assigning meaning to the collected information and determining the conclusions, significance, and implications of the findings.

The present study is intended to find out the quality of educational research in Kerala. Information was collected through interviews and by using a scale on perception. The interview was done with adjudicators from different universities both inside and outside Kerala. Investigator prepared an Interview schedule by the information gathered from reviews. And for the perception scale, major dimensions identified by the researcher through review and discussion with adjudicators were considered which includes relevance of the study, method followed, tools and techniques, analysis and interpretation, reporting of the findings, and references.

The analysis of the data collected through interview and the scale are analysed properly and is presented under the sections

- a. Analysis of information collected through interview
- b. Analysis of data collected through the perception scale

### **Analysis of Information Collected Through Interview**

In the present study, the investigator attempted to collect the reflections of adjudicators on the quality of educational research both from inside and outside Kerala. Eight adjudicators were selected for the interview. An interview schedule was prepared to collect the data. The details of responses of adjudicators on improving quality of educational research in Kerala is presented below.

**Adjudicator 1: 16/11/2020**

Dedication towards research is of utmost importance while doing research. Reliability, validity, and conformability are the major concerns in the quality of research. In order to ensure the standard of results, appropriate research design must be adopted.

**Adjudicator 2: 18/11/2020**

The interest of the researcher is important while doing research. Quality and quantity to be considered equally. For quality; internal validity and external validity are important, credibility, consistency, applicability are also important for quality. The problem selected should be relevant and feasible. Problem identification itself reflects innovation and creativity in research. The quality and appropriateness of the tools used for data collection and validation of the tools are determinants of the quality of research. The language used in reporting, methodological correctness, consistency of the findings, and applicability of the results also contributes to the quality of research.

**Adjudicator 3: 19/11/2020**

The interest of the researcher is of utmost importance in research. A researcher should consider the social relevance and significance of the problem while selecting the problem. The title should be clear, highlighting the theme of the research. Appropriate objectives and appropriate design help the researcher to improve the quality of educational research. Validity and credibility of the research should be maintained. A common framework for research reporting is needed across the universities of Kerala. Both qualitative and quantitative research are equally rigorous, but the standards of assessment differ.

**Adjudicator 4: 19/11/2020**

Reliability is the matter of consistency, validity is the matter of accuracy, with this perfection, and social relevance are the intent of the concerns for research. The selection of appropriate tools for data collection will enrich the research design. Mere replication of the study is meaningless and should be avoided. Qualitative research uses the criteria of trustworthiness and authenticity.

**Adjudicator 5: 21/11/2020**

Relevance of the topic and adequate selection of statements will lead to innovative and creative ideas in research. Research language and methodology should be concerned while doing research. The research language is important while preparing the research report which is technical and scientific. An ample theoretical knowledge will make a strong base for research. The tool used for data collection should be a valid one. It is easy to conduct educational research but many times it is not satisfying the quality criteria. There is a need for restructuring the quality criteria for educational research.

**Adjudicator 6: 22/11/2020**

Accuracy and validity of research and seriousness in research, and a standardized framework enrich the quality of educational research. The genuine interest of the researcher and enforcing new areas for research will help the researcher to be innovative and creative in research. Adopting appropriate design and Using appropriate tools and techniques are essential for ensuring the quality of research. Though there is good criteria for assessing research, assessment is not practiced in a proper way. Researchers should not be subjective while doing research and reporting. Proper concerns on title, structure, objectives, tools,

methodology, scope, limitations, findings..etc. should be made. The quality of research is deteriorating these days. Researchers need to focus on the purpose and usefulness of the research works they are carrying out.

**Adjudicator 7: 24/11/2020**

Innovative ideas in research with social/educational relevance should be the major concern while selecting a problem. The review of literature should be comprehensive, relevant, and clear with a conclusion that reveals the gap in research in the area. Regarding the tools and techniques, the development of the tools must be scientific; otherwise, it will be reflected in the results of the study. Applicability, reliability, and validity are of concern while thinking about the quality of research. A thorough literature review will help the researcher to know the scope of the research. The methodology should be adequate and appropriate for the study. Assessment should be based on criteria and the current practice on the assumption that most of the evaluators know what the criteria are followed in different universities in Kerala, but other universities outside Kerala provide particular criteria for evaluating the research reports.

**Adjudicator 8: 29/11/2020**

The researcher must be creative and innovative approaches should be used for research. Research work should have accuracy, validity, and reliability. Researchers are expected to prepare tools by considering the theoretical dimensions and it should follow the scientific procedure of developing the tool. The procedure of research should be clear and appropriate. Every researcher should know or understand what he/she is studying. The educational implications of the study are closely related to the findings of the study; it is also an important

factor in research. According to the level, whether M.Ed, MPhil, or Ph.D., different criteria are to be used for assessment.

Adjudicators have the common opinion that educational research findings are not reached properly to the implementation level. The need of disseminating the research outputs is underlined by them. The majority are involved in the research process just for the sake of a degree or for monetary benefits. The number of genuine researchers is decreasing and it affects the quality of research. According to them, there are many areas in education which need more exploration through innovative research. Regarding the quality of research, there was a common agreement on reliability, validity, applicability, accuracy, innovations, originality, and the need for a standardised framework for research reporting. All the adjudicators supported the need for common criteria to evaluate the research reports and implementation of the research findings. Plagiarism was noted as a major issue in research and the importance of research ethics was highlighted. The responses of the interview regarding the quality criteria of educational research were coded and consolidated as given below.

Table 3

*Quality criteria of educational research recommended by adjudicators*

Codes	Frequency
Quality of research tools	6
Innovative approach to research	5
Appropriate techniques for analysis of data	5
Adequate interpretation of results	5
Usefulness / social relevance of the study	4

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Adequate literature review	4
Appropriate methodology	4
Appropriate research design	3
Clarity of statement of the problem	3
Adequate reporting	2

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Table 3 contains the major dimensions suggested by the adjudicators identified from the responses in the interview with the number of adjudicators suggesting that criterion. The criteria are presented in table 3 based on the number of adjudicators suggesting that item. The most important one being the quality of research tools, second is the innovative approach to educational research, the next being appropriate techniques for analysis. The fourth one is the adequate interpretation of results, the fifth is social relevance, and the sixth one is a comprehensive review. Adjudicators stated that the method should be selected according to research problems, which influence design, sample, variables, and all. So quality research should be away from any kind of bias. The appropriate design, clarity of statement, and adequate reporting of the work are the other criteria to be included.

These suggestions were included in developing the perception scale.

### **Analysis of Data Collected Through the Perception Scale**

Responses of the perception scale on perception on quality of educational research were collected through Google form and the responses were classified into three categories as a rating of the quality, percentage of studies with the quality, and suggestions for improvement.

The percentage of teacher educators (research scholars and supervising

teachers) who rated each quality under the three ratings is given in table 4.

Table 4

*Percentage of teachers with the rating of the quality of educational research*

Sl. No.	Items	Group	Highly Adequate	Some extent	Not adequate
1	Social or educational relevance	Research scholar	13	81	6
		Supervising teacher	6	85	9
2	Approach to the research	Research scholar	6	88	6
		Supervising teacher	2	89	9
3	Statement of the problem	Research scholar	34	62	4
		Supervising teacher	9	89	2
4	Review of literature	Research scholar	51	47	2
		Supervising teacher	21	75	4
5	Method followed	Research scholar	9	91	0
		Supervising teacher	4	90	6
6	Objectives or research questions	Research scholar	9	89	2
		Supervising teacher	6	92	2
7	Design of the study	Research scholar	13	83	4
		Supervising teacher	6	86	8
8	Population or sample	Research scholar	15	85	0
		Supervising teacher	4	96	0
9	Sample size	Research scholar	13	87	0
		Supervising teacher	4	94	2

10	Selection of tools/techniques	Research scholar	9	89	0
		Supervising teacher	6	92	2
11	Quality of tool used	Research scholar	9	81	11
		Supervising teacher	2	81	17
12	Method for data collection	Research scholar	13	74	2
		Supervising teacher	4	94	2
13	Techniques for analysis	Research scholar	9	89	2
		Supervising teacher	6	90	4
14	Implications of research findings	Research scholar	9	83	9
		Supervising teacher	2	81	17
15	Study leading to further research	Research scholar	6	88	6
		Supervising teacher	4	79	17
16	Research framework	Research scholar	49	51	0
		Supervising teacher	21	79	0
17	Findings of research	Research scholar	11	83	4
		Supervising teacher	2	94	4
18	Interpretation of results	Research scholar	9	87	4
		Supervising teacher	2	90	8
19	Reference/ bibliography	Research scholar	45	55	0
		Supervising teacher	19	79	2

## Discussion

Table 4 shows that 13 percent of the research scholars and 6 percent of supervising teachers feel that educational researches in Kerala are highly useful



and have social or educational relevance, 81 percent of research scholars and 85 percent of supervising teachers perceive that researches are following social or educational relevance to some extent. But 6 percent from research scholars and 9 percent from supervising teachers had the perception that the researches are having no social or educational relevance.

From table 4, it can be seen that 88 percent of the research scholars perceive that researches are following innovative approaches. As per table 4, supervising teachers (89%) also supported that research studies follow moderately innovative ideas. But 6 percent from research scholars and 9 percent from supervising teachers have the perception that research is mere duplication in their approaches.

Item 3 in Table 4 shows that 34 percent of research scholars perceived that the research titles are properly stated, whereas 9 percent of supervising teachers supported this. 89 percent of supervising teachers and 62 percent of research scholars rated the statement as adequate to some extent. But 4 percent of research scholars and 2 percent of supervising teachers had the perception that the statement is not adequate.

In table 4, it is given that 51 percent of research scholars and 21 percent of supervising teachers support that researches includes a very appropriate review of related literature. Forty-seven percent of research scholars and 75 percent of supervising teachers responded that the literature review used in researches is moderately appropriate. But 2 percent of research scholars and four percent of supervising teachers perceive that literature reviews in research are not appropriate.

Item 5 in table 4 shows that 9 percent of research scholars and 4 percent of supervising teachers agree that adequate methods are used in researches in education. Ninety-one percent of research scholars perceive that method followed in researches is adequate to some extent, 90 percent of supervising teachers also possess the same view. But 6 percent of supervising teachers comment that the researches in education does not follow appropriate methods.

In the case of item 6 in table 4, only 9 percent of research scholars and 6 percent of supervising teachers supported on objectives or research questions are accurately answered in research and 89 percent of research scholars and 92 percent of supervising teachers perceived that objectives or research questions are stated but are not adequate. Two percent of both research scholars and supervising teachers had the perception that objectives or research questions are not properly answered in research.

Table 4 shows that 13 percent of research scholars and 6 percent of supervising teachers perceive that research designs are appropriate; 83 percent of research scholars and 86 percent of supervising teachers perceive the design of the study as moderately appropriate whereas 4 percent of research scholars and 8 percent of supervising teachers perceive the designs used in research as not appropriate.

For item 8, 15 percent of research scholars and 4 percent of supervising teachers perceived that the population or sample is clearly explained. 85 percent of research scholars, and 96 percent supervising teachers found population or sample are just explained or mentioned in research reports.

From table 4, it can be seen that 13 percent of research scholars and 4 percent of supervising teachers perceive sample size as adequate; 87 percent of research scholars and 94 percent of supervising teachers perceive that sample size is adequate to some extent. Two percent of supervising teachers feel that the sample size is not adequate in most of the research studies.

In the case of item 10, 9 percent of research scholars and 6 percent of supervising teachers perceive that selection of techniques/tools is very appropriate; 89 percent of research scholars and 92 percent of supervising teachers stated that selections of techniques/tools are appropriate to some extent whereas 2 percent of supervising teachers feel that selection of techniques/tools is not appropriate in researches.

Table 4 states that 9 percent of research scholars and 2 percent of supervising teachers are highly satisfied with the quality of tools used in researches. 81 percent of both research scholars and supervising teachers are moderately satisfied with the quality of tools used in research. But 11 percent of research scholars and 17 percent of supervising teachers are not satisfied with the quality of tools used.

With respect to the item on method of data collection, 13 percent of research scholars and 4 percent of supervising teachers perceive method for data collection as highly adequate; 74 percent of research scholars and 94 percent supervising teachers stated methods of data collection are adequate to some extent in researches. But 2 percent of both research scholars and supervising teachers had the perception that methods for data collection are not adequate.

The responses to item 13 reveal that 9 percent of research scholars and 6 percent of supervising teachers perceive the analysis techniques used in researches as adequate, 83 percent of research scholars and 81 percent of supervising teachers perceive that techniques for analysis are adequate to some extent. But 9 percent of research scholars and 17 percent of supervising teachers had the perception that techniques for analysis are not at all adequate.

Item 14 shows that 9 percent of research scholars and 2 percent of supervising teachers are highly satisfied with implications followed in researches, 83 percent of research scholars and 81 percent of supervising teachers perceive that implications followed in researches are moderately satisfied. But 9 percent of research scholars and 17 percent of supervising teachers feel the implications of the research as not satisfied.

In the item, study leading to further research, 6 percent of research scholars and 4 percent of supervising teachers are satisfied by the level that the studies are leading to further research. 88 percent of research scholars and 79 percent of supervising teachers feel that the studies are leading to further research to some extent and 6 percent of research scholars and 17 percent of supervising teachers had the perception that the studies are not leading to further research.

In the case of item 16, 49 percent of research scholars and 21 percent of supervising teachers perceive that research is done under an excellent framework whereas 51 percent of research scholars and 79 percent of supervising teachers state that researches are following a framework to some extent.

Table 4 shows, 11 percent of research scholars and 2 percent of supervising teachers perceive the findings of educational research are highly

adequate; 94 percent of research scholars and 87 percent of supervising teachers state that the findings of the research are adequate to some extent. But 4 percent of research scholars as well as supervising teachers feel that the findings of research are not adequate or not adequately reported.

In table 4, on item 18, 9 percent of research scholars and 2 percent of supervising teachers perceive interpretation of results is done adequately, whereas 87 percent of research scholars and 90 percent of supervising teachers feel that interpretation of results is adequate to some extent. Four percent of research scholars and 8 percent of supervising teachers had the perception that interpretations of results are not done adequately.

In the case of reference or bibliography, 45 percent of research scholars and 19 percent of supervising teachers perceive that the references given in the report are adequate; 79 percent of supervising teachers and 55 percent of research scholars stated that reference or bibliography followed in research reports are adequate to some extent. But 2 percent of supervising teachers pointed out that references or bibliography given in research reports are not adequate.

The rating of teacher educators (research scholars and supervising teachers) on quality of educational research in percentage is given in table 5.

Table 5

*Rating of teacher educators on quality of educational research in percentage of studies*

Sl. No.	Items	Group	0%-20%	20%-40%	40%-60%	60%-80%	80%-100%
1	Social or educational relevance	Research scholar	0	2	49	49	0
		Supervising teacher	1	9	75	15	0
2	Approach to the research	Research scholar	0	11	57	28	4
		Supervising teacher	7	11	70	12	0
3	Statement of the problem	Research scholar	2	0	52	41	4
		Supervising teacher	1	0	53	45	1
4	Review of literature	Research scholar	0	2	28	62	8
		Supervising teacher	1	1	31	60	7
5	Method followed	Research scholar	0	4	72	16	8
		Supervising teacher	1	11	79	8	1
6	Objectives or research questions	Research scholar	0	8	66	15	11
		Supervising teacher	4	1	68	21	6
7	Design of the study	Research scholar	0	6	57	26	11
		Supervising teacher	1	7	85	6	1

8	Population or sample	Research scholar	3	42	38	17	0
		Supervising teacher	0	4	68	24	4
9	Sample size	Research scholar	0	4	57	28	11
		Supervising teacher	0	1	79	19	1
10	Selection of techniques/tools	Research scholar	2	2	62	21	13
		Supervising teacher	0	15	75	9	1
11	Quality of tool used	Research scholar	0	26	55	11	8
		Supervising teacher	6	34	60	0	0
12	Method for data collection	Research scholar	0	1	78	13	8
		Supervising teacher	2	9	47	42	0
13	Techniques for analysis	Research scholar	0	8	66	17	11
		Supervising teacher	4	6	64	11	15
14	Implications of research findings	Research scholar	0	6	83	11	0
		Supervising teacher	2	11	51	9	2
15	Study leading to further research	Research scholar	4	11	32	53	0
		Supervising teacher	3	14	36	42	5
16	Research framework	Research scholar	4	8	66	19	3
		Supervising teacher	0	11	69	18	2

17	Findings of research	Research scholar	4	11	44	30	11
		Supervising teacher	0	7	80	9	4
18	Interpretation of results	Research scholar	2	0	44	39	15
		Supervising teacher	0	3	53	40	4
19	Reference/ bibliography	Research scholar	1	4	83	6	6
		Supervising teacher	2	0	79	19	0

## Discussion

Table 5 shows that one percent of supervising teachers perceive that less than 20 percent of the researches in Kerala have studied a socially or educationally relevant problem. 2 percent of research scholars and 9 percent of supervising teachers perceive 20 to 40 percent of researches are socially or educationally relevant. 49 percent of research scholars and 75 percent of supervising teachers consider 40 to 60 percent of researches in education as socially / educationally relevant; 49 percent of research scholars and 15 percent of supervising teachers perceive 60 to 80 percent of researches in education as socially/educationally relevant. No research scholars or supervising teachers feel that 80-100 percent of Ph.D works are socially/educationally relevant.

Table 5 shows that 7 percent of supervising teachers perceive that less than 20 percent of the researches in Kerala are innovative. 11 percent of research scholars as well as supervising teachers perceive 20 to 40 percent of researches are innovative in approach.. 57 percent of research scholars and 70 percent of



supervising teachers feel that 40 to 60 percent research in education follows an innovative approach. 28 percent of research scholars and 12 percent of supervising teachers responded that 60 percent to 80 percent of research in Kerala follows innovative approaches. 4 percent of research scholars perceive more than 80 percent of Ph.D works are innovative in their approach.

Item 3 in table 5 shows that 2 percent of research scholars and 1 percent of supervising teachers perceive that the statement of the problem and definition of key terms are adequate in less than 20 percent of the researches in Kerala; 52 percent of research scholars and 53 percent of supervising teachers feel that 40 percent to 60 percent of the researches are with an adequate statement of the title/ selection of keyword; 41 percent of research scholars and 45 percent of supervising teachers perceive that in 60 to 80 of the researches in Kerala the statement and key terms are adequately defined; only 4 percent of research scholars and 1 percent of supervising teachers accept that the statements and key terms are clear in more than 80 percent of educational research in Kerala.

Table 5 shows that 1 percent of supervising teachers perceive that a comprehensive review is done only in less than 20 percent of educational research in Kerala; 2 percent of research scholars and 1 percent of supervising teachers perceive that 20 to 40 percent of the researches in education include an adequate review of literature; 28 percent of research scholars and 31 percent of supervising teachers feel that 40 to 60 percent of the researches have an adequate review of literature; 62 percent of research scholars and 60 percent of supervising teachers stated that 60 to 80 percent of the researches in Kerala have comprehensive review of literature; 8 percent of research scholar and 7 percent of supervising

teachers responded that more than 80 percent of Ph.D work in Kerala include a comprehensive review of the literature.

Table 5 shows that 1 percent of supervising teachers stated that less than 20 percent of the researches in Kerala follow adequate research methods. 4 percent of research scholars and 11 percent of supervising teachers perceived that 20 to 40 percent of the researches follows adequate research methods. 72 percent of research scholars and 79 percent of supervising teachers noted that 40 to 60 percent of the researches in education follows adequate research methods. 16 percent of research scholars and 8 percent of supervising teachers stated that 60 to 80 percent of the researches in education follow adequate research methods. 8 percent of research scholars and 1 percent supervising teachers feel that 80 to 100 percent of Ph.D works in Kerala follow adequate research methods.

Table 5 shows that 4 percent of supervising teachers perceive less than 20 percent of the research in Kerala include adequate objectives or research questions. 8 percent of research scholars and 1 percent of supervising teachers responded that 20 to 40 percent of the research provides adequate objectives or research questions. 66 percent of research scholars and 68 percent of supervising teachers noted that 40 to 60 percent of the researches in Kerala provide adequate objectives or research questions. 15 percent of research scholars and 21 percent of supervising teachers perceive that 60 to 80 percent of the researches in education provide adequate objectives or research questions. 11 percent of research scholars and 6 percent of supervising teachers perceive that more than 80 percent of Ph.D works in Kerala provide adequate objectives or research questions.

For item 7 in table 5, 1 percent from supervising teachers perceives that

less than 20 percent of the research in Kerala follows appropriate research design. 6 percent of research scholars and 7 percent of supervising teachers responded that 20 to 40 percent of the research follows an appropriate research design. 57 percent of research scholars and 85 percent of supervising teachers noted that 40 to 60 percent of the research in education have adopted appropriate research design. 26 percent of research scholars and 6 percent of supervising teachers perceive that 60 to 80 percent of researches in Kerala have adopted appropriate research design. 11 percent of research scholars and 1 percent of supervising teachers perceive that more than 80 percent of Ph.D works in Kerala adopt appropriate research design.

For item 8 in table 5, 3 percent of research scholars perceive that less than 20 percent of the researches in Kerala have clearly stated population and sample. 42 percent of research scholars and 4 percent of supervising teachers feel that 20 to 40 percent of researches clearly state population and sample. 38 percent of research scholars and 68 percent of supervising teachers noted that 40 to 60 percent of researches in education clearly state population and sample. 17 percent of research scholars and 24 percent supervising teachers feel that 60 to 80 percent of the researches define population and sample. 4 percent supervising teachers perceived that more than 80 percent of the researches in Kerala clearly defined the population and sample.

Table 5 shows that 4 percent of research scholars and 1 percent of supervising teachers feel that 20 to 40 percent of the research works in Kerala have ample sample size. 57 percent of research scholars and 79 percent of supervising teachers perceive that 40 to 60 percent of the research follows an

adequate sample size; 28 percent of research scholars and 19 percent supervising teachers responded that 60 to 80 percent of the researches in education have adequate sample size. 11 percent from research scholars and 1 percent of supervising teachers perceive that more than 80 percent of Ph.D works are with an adequate sample size.

In the case of item 10, 2 percent of research scholars perceive that appropriate tools / techniques are used in less than 20 percent of the research in Kerala; 2 percent of research scholars and 15 percent of supervising teachers feel that 20 to 40 percent of the research in Kerala have selected appropriate tools / techniques for the study; 62 percent of research scholars and 75 percent of supervising teachers perceive that 40 to 60 percent of the research in education use appropriate tools/ techniques for data collection; 21 percent of research scholars and 9 percent of supervising teachers responded that appropriate tools/ techniques are used in 60 to 80 percent of PhD work in Kerala; 13 percent of research scholars and 1 percent of supervising teachers perceive that in more than 80 percent of the research in Kerala appropriate tools/ techniques are used.

Table 5 shows that 6 percent of supervising teachers perceives that less than 20 percent of the research works in Kerala have ensured the quality of research tools. 26 percent of research scholars and 34 percent supervising teachers responded that in 20 to 40 percent of the research works in Kerala, the quality of tools are ensured. 55 percent of research scholars and 60 percent of supervising teachers noted that 40 to 60 percent of the research in education has ensured the quality of tools. 11 percent of research scholars had the perception that 60 to 80 percent of the research in Kerala ensured quality of the tools. 8 percent of research

scholars feel that in more than 80 percent of Ph.D works in Kerala the quality of research tools are ensured.

For item 12 in table 5, 2 percent of supervising teachers feel that less than 20 percent of the researches in Kerala follow adequate methods for data collection. 1 percent of research scholars and 9 percent of supervising teachers perceive that 20 to 40 percent of researches in education follow adequate methods for data collection, the percentage of researches is in between 40 to 60 for 78 percent of research scholars and 47 percent of supervising teachers; it is in between 60 to 80 for 13 percent of research scholars and 42 percent of supervising teachers. 8 percent of research scholars responded that more than 80 percent of the researches in Kerala adopt adequate methods for data collection.

From table 5 it can be seen that 4 percent of supervising teachers perceive that in less than 20 percent of the researches in Kerala adequate techniques for analysis of data are used; it is in between 20 to 40 according to 8 percent of research scholars and 6 percent of supervising teachers; the percentage of researches in Kerala in which adequate analysis techniques were used is 40 to 60 as perceived by 66 percent of research scholars and 64 percent of supervising teachers and it is 60 to 80 for 17 percent of research scholars and 11 percent of supervising teachers. 11 percent of research scholars and 15 percent of supervising teachers perceive that in more than 80 percent of Ph.D theses adequate data analysis techniques are used.

In the case of item 14 in table 5, 2 percent of supervising teachers stated that less than 20 percent of the researches in Kerala have incorporated relevant implications in the report; it is in between 20 to 40 for 6 percent of research

scholars and 11 percent of supervising teachers; 40 to 60 for 83 percent of research scholars and 51 percent of supervising teachers; 60 to 80 for 11 percent of research scholars and 9 percent of supervising teachers. Two percent of supervising teachers perceived that more than 80 percent of Ph.D theses in Kerala have incorporated relevant implications.

In table 5 on item 15, 4 percent from research scholars and 3 percent from supervising teachers perceive that less than 20 percent of the researches in Kerala suggest topics for further research; it is 20 to 40 for 11 percent of research scholars and 14 percent of supervising teachers; 40 to 60 for 32 percent of research scholars and 36 percent of supervising teachers; 60 to 80 for 53 percent of research scholars and 45 percent of supervising teachers. 5 percent of supervising teachers feel that more than 80 percent of Ph.D works in Kerala adequately suggest topics for further research.

For item 16 in table 5, 4 percent of research scholars perceive that less than 20 percent of the researches in Kerala have adopted an appropriate research framework. 6 percent of research scholars and 11 percent of supervising teachers state that 20 to 40 percent of the researches adopt an appropriate research framework. 66 percent of research scholars and 69 percent of supervising teachers noted that 40 to 60 percent of researches have an appropriate research framework. 19 percent of research scholars and 18 percent of supervising teachers feel that 60 to 80 percent of the researches in education have an appropriate research framework. 3 percent of research scholars and 2 percent of supervising teachers perceive that more than 80 percent of the research in Kerala adopts an appropriate research framework.

Responses to item 17 in table 5 reveals that, 4 percent from research scholars perceive that less than 20 percent of the research in Kerala have reported the findings of the study adequately; it is in between 20 to 40 for 11 percent of research scholars and 7 percent of supervising teachers; 40 to 60 for 44 percent of research scholars and 80 percent of supervising teachers 60 to 80 for 30 percent of research scholars and 9 percent of supervising teachers. In more than 80 percent of studies, the findings are reported adequately as per the observation of 11 percent of research scholars and 4 percent of supervising teachers.

Table 5 shows that 2 percent of research scholars perceive that less than 20 percent of the research reports have adequate interpretation of results. 3 percent of supervising teachers perceive that 20 to 40 percent of the research reports in Kerala attempt adequate interpretation of results. It is in between 40 to 60 for 44 percent of research scholars and 53 percent of supervising teachers; 60 to 80 for 39 percent of research scholars and 40 percent of supervising teachers. 15 percent of research scholars and 4 percent of supervising teachers feel that in more than 80 percent of the Ph.D works in Kerala interpretation of results are done adequately.

For item 19, 1 percent of research scholars and 2 percent of supervising teachers responded that less than 20 percent of the researches in Kerala provides adequate reference or bibliography; it is in between 20 to 40 for 4 percent of research scholars; 40 to 60 for 83 percent of research scholars and 79 percent of supervising teachers; 60 to 80 for 6 percent of research scholars and 19 percent of supervising teachers. 6 percent of research scholars consider that proper referencing is done in more than 80 percent of Ph.D works in Kerala.

### **Suggestions made by teacher educators to improve quality of educational research**

The responses to the open ended question on suggestions for improvement in educational research in Kerala by the teacher educators participated in the study are consolidated below.

1. Those who are really interested in research must be encouraged to conduct research. Enrolling for research for the sake of a degree should be discouraged.
2. The works should be strictly adhered to research ethics
3. Frequent presentation of the work done before the academic committee must be arranged in which creative suggestions and criticism of the work is encouraged.
4. Tool selection/ construction must be a serious task in the process of research.
5. A common discussion on important aspects of the study should be encouraged instead of confidential discussions.
6. Instead of a monotonous research design, researchers must make giant strides to maintain an innovative research design to find answers to the research question
7. More emphasis should be given for quality of research and avoid unnecessary duplication
8. Importance should be given to socially relevant studies.
9. Incorporate the implications of study to improve the practices in education.
10. The assessment should be done more objectively.

### **Conclusion**



The responses of interviews with adjudicators show that listing of quality criteria for educational research is important in improving quality of research. The relevance of the topic, quality of research tools, appropriate research design, a common framework for reporting research, innovative approach, clarity of research statement, selection of techniques, balanced objectives and research questions, adequate techniques for analysis, adequate research method, clearly stated population and sample, relevant implications, adequate sample size, comprehensive review, reporting findings adequately, proper referencing, adequate suggestion for further research, satisfied interpretation of results were derived from the responses as important criteria for quality of research. The responses to the perception scale on the extent of each quality by the research scholars and the supervising teachers revealed that the research in education in Kerala follows a framework and the studies have clearly stated problems. All other criteria are present in the research to a moderate extent. As per the perception of research scholars 40 to 60 percent of research studies in Kerala satisfy the qualities listed. In order to improve the quality of research, the suggestions by the participants include selecting only interested ones for research who take the research seriously, open discussions on the process of research and effective assessment procedures.

In the next chapter, summary, findings and suggestions of the study are presented.

**SUMMARY, FINDINGS,  
CONCLUSION, AND  
SUGGESTIONS**

- 
- ❖ **Study in Retrospect**
  - ❖ **Major Findings of the Study**
  - ❖ **Educational Implications for the Study**
  - ❖ **Suggestions for Further Research**
  - ❖ **Conclusion**
-

## **SUMMARY, FINDINGS, CONCLUSION AND SUGGESTIONS**

This chapter provides an overview of the significant aspects of the various stages of the study, the major findings of the study and their educational implications, and suggestions for further research. The chapter is organized under the following headings:

- ❖ Study in Retrospect
- ❖ Major Findings of the Study
- ❖ Educational Implications
- ❖ Suggestions for Further Research

### **Study in Retrospect**

This section tries to make a retrospective study of different stages of the present study such as the title, research questions, objectives of the study, and methodology used for the study.

#### **Restatement of the Problem**

The present study is aimed to analyse the quality of educational research in various universities in Kerala viz., Kerala University, Mahatma Gandhi University, University of Calicut, and Kannur University as perceived by teacher educators engaged with research. The problem is entitled as “PERCEPTION OF TEACHER EDUCATORS ON QUALITY OF EDUCATIONAL RESEARCH IN KERALA”.

### **Research Questions**

The research questions answered in the study are

1. What is the perception of teacher educators on the quality of educational research in Kerala?
2. What are the suggestions of teacher educators on essential quality criteria for educational research in Kerala?
3. What are the suggestions of teacher educators to improve the quality of research in Kerala?

### **Objectives of the study**

The major objectives of the study are

1. To analyse the perception of teacher educators on the quality of educational research in Kerala.
  - a) To analyse the perception of educational research adjudicators on the quality of educational research in Kerala.
  - b) To analyse the perception of research supervisors on the quality of educational research in Kerala.
  - c) To analyse the perception of researchers among teacher educators on the quality of educational research in Kerala.
2. To summarise the suggestions of teacher educators for quality enhancement in researches
3. To develop quality criteria for scientific research in education.

### **Methodology of the Study**

The study tried to know the perception of teacher educators on the quality of educational research from the universities of Kerala. This study adopted Qualitative research.

### **Participants**

The study used the non probability sampling technique to select teacher educators who are adjudicators and/ supervisors of educational research in Kerala and researchers among teacher educators from the four universities in Kerala viz., Kerala University, University of Calicut, M G University, and Kannur University for analysing the perception on quality of educational researches in Kerala. The participants include 8 adjudicators, 53 supervising teachers and 47 research scholars (total: 108) from the four universities in Kerala.

### **Tools and Techniques**

A Scale on perception about the quality of educational research was prepared by the researcher and was used for data collection. The interview was done with teacher educators who are adjudicators of the theses under universities of Kerala.

### **Analysis of Data**

Analysis of the data collected through the interview was done through proper transcribing and coding. Percentage analysis was used for analysing the perception of teacher educators on the quality of educational research with respect to each criterion listed. The suggestions to improve the quality were also coded under different categories.

### **Findings of the Study**

- ❖ In the adjudicators view dedication and interest towards research is of utmost importance while doing research
- ❖ In order to ensure the standard of results, appropriate research design must be adopted.
- ❖ Quality and quantity to be considered equally. For quality; internal validity and external validity are important, credibility, consistency, applicability are also important for quality. Qualitative research uses the criteria of trustworthiness and authenticity.
- ❖ Adjudicators are satisfied with the existing criteria but need to practice criterias strictly for evaluating quality of research.
- ❖ 81 percent of research scholars and 85 percent of supervising teachers perceive that researches are socially or educationally relevant to some extent
- ❖ Most of the (89%) supervising teachers supported that research works are innovative to some extent.
- ❖ 89 percent of supervising teachers and 62 percent of research scholars rated the statement of the problem in educational research as adequate to some extent
- ❖ Around 75 percent of supervising teachers responded that the literature review used in researches is moderately appropriate and 47 percent of research scholars also stated the same.
- ❖ Ninety-one percent of research scholars perceive that method followed in researches is adequate to some extent, 90 percent of supervising teachers also possess the same view

- ❖ Majority (92%) of supervising teachers and 89 percent of research scholars feel that objectives or research questions are stated but are not adequate
- ❖ Eighty three percent of research scholars and 86% supervising teachers stated the design of the study as moderately appropriate.
- ❖ Teacher educators found that population or samples are just explained or mentioned in research reports.
- ❖ 87 percent of research scholars and 94 percent of supervising teachers perceive that sample size is adequate to some extent.
- ❖ 89 percent of research scholars stated that selections of techniques/tools are appropriate to some extent and 92 percent of supervising teachers also support it.
- ❖ Both research scholars and supervising teachers(81%) are moderately satisfied with the quality of tools used in research.
- ❖ 74 percent of research scholars and 94 percent supervising teachers stated methods of data collection are adequate to some extent in researches.
- ❖ 83% of research scholars and 81 percent of supervising teachers perceive that techniques for analysis are adequate to some extent
- ❖ 83 percent of research scholars and 81 percent of supervising teachers perceive that implications followed in researches are moderately satisfied.
- ❖ 88 percent of research scholars and 79 percent of supervising teachers feel that the studies are leading to further research to some extent
- ❖ 51% of research scholars and 79 percent of supervising teachers state that researches are following a framework to some extent.

- ❖ 94 percent of research scholars and 87 percent of supervising teachers state that the findings of the research are adequate to some extent.
- ❖ 87 percent of research scholars and 90 percent of supervising teachers feel that interpretation of results is adequate to some extent.
- ❖ 79 percent of supervising teachers and 55 percent of research scholars stated that reference or bibliography followed in research reports are adequate to some extent.
- ❖ 49 percent of research scholars and 75 percent of supervising teachers perceive that 40 to 60 percent of research works in Kerala are done on socially relevant problems. The same percent of research scholars feel that 60 to 80 percent research works in education are socially relevant. But no one perceives that more than 80 percent of studies are socially relevant.
- ❖ Majority (70%) of supervising teachers and 57 percent of research scholars state that 40 to 60 percent of research works in education adopt innovative approaches. No supervising teachers report that more than 80 percent of research studies are innovative.
- ❖ Almost 50 percent of research scholars supervising teachers feel that 40 to 60 percent of research works in education have adequately stated the title and defined keywords.
- ❖ Almost 60 percent of research scholars and supervising teachers perceive that 60 to 80 percent of research works in education have appropriate review of literature. Less than 10 percent of both groups found more than 80 percent of the research works include comprehensive literature.



- ❖ 79 percent of supervising teachers and 72 percent of research scholars feel that 40 to 60 percent of research works in education follow adequate research methods.
- ❖ Around 68 percent of research scholars and supervising teachers feel that 40 to 60 percent of research works in education state the objectives or research questions adequately.
- ❖ 85% of supervising teachers and 57 percent of research scholars perceived that 40 to 60 percent of research work in education adopt appropriate research design.
- ❖ 38 percent of research scholars and 68 percent of supervising teachers perceive that 40 to 60 percent of research works in education have stated population and sample clearly. No research scholars report that more than 80 percent of research stated population and sample clearly
- ❖ 79 percent of supervising teachers and 57% of research scholars state that 40 to 60 percent of research works in education are done with adequate sample size.
- ❖ 75% of supervising teachers and 62 percent of research scholars feel that 40 to 60 percent of research works in education have selected appropriate tools/ techniques.
- ❖ 55% research scholars and 60 percent of supervising teachers perceive that in 40 to 60 percent of research works in education the tools used are of quality.
- ❖ 47% of supervising teachers and 78 percent of research scholars state that 40 to 60 percent of research works in education adopt adequate methods for data collection.

- ❖ 66 percent of research scholars and 64 percent of supervising teachers feel that 40 to 60 percent of research works in education use adequate techniques for analysis.
- ❖ 83% of research scholars and 51 percent of supervising teachers state that in 40 to 60 percent of research works in education, implications are clearly explained.
- ❖ 45 percent of supervising teachers and 53 percent of research scholars feel that 60 to 80 percent of research works in education lead to further researches.
- ❖ 66% of research scholars and 69 percent of supervising teachers perceive that 40 to 60 percent of research works in education follow an appropriate framework.
- ❖ 80 percent of supervising teachers and 44 percent of research scholars state that 40 to 60 percent of research work in education explains finding of the study adequately.
- ❖ 44% of research scholars and 53 percent of supervising teachers feel that 40 to 60 percent of research works in education have done the interpretation of results adequately.
- ❖ 79% of supervising teachers and 83 percent of research scholars feel that 40 to 60 percent of research works in education provides adequate reference or bibliography
- ❖ Most of the teacher educators suggested that those who are really interested in research must be encouraged to conduct research
- ❖ Teacher educators supported the need for common criteria to evaluate the research reports and implementation of the research findings.

- ❖ Teacher educators suggested that the method should be selected according to research problems, which influence design, sample, variables, and all. So quality research should be away from any kind of bias
- ❖ Importance should be given to socially or educationally relevant studies
- ❖ From the review of related studies and the interview with teacher educators, nineteen quality criteria for scientific research in education were identified.. The criteria identified are social or educational relevance, innovative approach, clarity of research statement, comprehensive review, adequate research method, balanced objectives and research question, appropriate research design, clearly stated population and sample, adequate sample size, appropriate selection of techniques, quality of research tool, transparent method for data collection, adequate analysis techniques, framework for reporting research, adequate findings, adequately suggest for further research, interpretation of results, proper referencing

### **Educational Implications of The Study**

Poor quality of research programs is identified as the major reason for poor ranking of Higher education Institutions in India. The purpose of any educational research is for the development and progress of education. As such, the present study has important and genuine implications in the field of educational research. This study has relevant implications for enhancing the quality of educational research.

- ❖ The study found that through research scholars are satisfied with many of the criteria, adjudicators and supervising teachers perceive many of the qualities are not met by the researches in education, the major area being design of the

study, method followed, quality of tool used, implications of research findings, study leading to further research. Hence research scholars and supervising teachers must be more concentrating on these aspects of research.

- ❖ The criteria identified may be used for developing a common platform for evaluating the research in education.
- ❖ As teacher educators are found to be dissatisfied with the quality of tools used, design of the study and techniques for analysis. Proper training be given to the researchers in preparation of tools and techniques. Workshops are to be arranged yearly on preparation of research instruments. Instead of a confidential discussion between teacher and scholar, a common discussion must be encouraged.
- ❖ Frequent presentation of the progress of the study before the academic group followed by creative criticism and interaction will be useful to improve quality of research.

### **Suggestions for Further Research**

- ❖ The study can be replicated by adopting focus group discussion instead of interview and incorporating a wide sample.
- ❖ This study on the perception of teacher educators on criteria of quality of educational research can also be replicated for other universities outside Kerala.
- ❖ The study can be conducted on other disciplines of universities outside Kerala.
- ❖ A quantitative approach can be employed to explore the perception of teacher educators on the quality of educational research.

### **Conclusion**

The criteria for quality research are listed through the study by incorporating the responses of the interview with teacher educators and it starts with the relevance of the topic to proper referencing. A total number of nineteen criteria were identified as important for quality of educational research and the perception of teacher educators on research in Kerala with respect to these criteria was studied. Most of the teacher educators consider that these criteria are present in the educational research in Kerala but the extents of these qualities are limited. Majority of teacher educators feel that many of the criteria are not satisfied by the research works in Kerala. The results of the study can be summarised as statement of the problem, review of literature, study leading to further research, reference/ bibliography are the qualities mostly perceived by teacher educators in research works, social or educational relevance, approach to the research, methods followed, objectives or research questions, population, sample size, selection of techniques, methods of data collection, implications, study leading to further study, research framework, findings, interpretation of results are present to some extent and design of the study, quality of tool used, techniques for analysis are the least perceived qualities in educational research.

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# **APPENDICES**

## **APPENDIX I**

### **FAROOK TRAINING COLLEGE**

#### **Research Centre in Education**

### **INTERVIEW SCHEDULE FOR ADJUDICATORS**

Dr. K. Vijayakumari  
Associate Professor  
Farook Training College

Shebeeha Shamshad M  
M.Ed Student  
Farook Training College

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1. What are the dimensions that are commonly used to measure the quality of educational research?
2. What is your opinion about the standardized research reporting framework?
3. Will you please suggest what are the relevant aspects to be included in a questionnaire for assessing the quality of educational research in general?
4. Suggestions that you can give to improve the quality of educational research?

## **APPENDIX II**

### **FAROOK TRAINING COLLEGE**

#### **Research Centre in Education**

### **PERCEPTION SCALE ON QUALITY OF EDUCATIONAL RESEARCH IN KERALA**

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This is a scale to measure on perception of teacher educators on quality of educational research in Kerala. Major dimensions identified by the investigator through review and discussion with research adjudicators are Relevance of the study, Method followed, Analysis and Interpretation, Reporting of the findings and References. Some phrases related to these dimensions are given below with possible responses. You are requested to mark the level of each quality you think the educational researches in Kerala have in general. Under each item another question is given to which you are expected to make your response based on the percentage of educational research that you think satisfy the criterion.

You are kindly requested to complete this perception scale. There is no right or wrong answer, feel free to express your responses as per the given format. I ensure that all the responses will be kept confidential and will be used only for research purposes.

Name :

Designation : Supervising Teacher Research Scholar

University/ Institution :

1. Social or educational Relevance / Usefulness of the study

(a) Highly useful (b) Useful to some extent (c) Not useful

A. Social or educational Relevance /Usefulness of the researches (state in percentage)

(a) 80% - 100% (b) 60% - 80% (c) 40% - 60%

(d) 20% - 40% (e) 0% - 20%

2. Approach to the study

(a) Highly innovative (b) Moderately innovative

(c) Repeated / Duplicated

B. At what extent researches follows innovative approach (state in percentage)

(a) 80% - 100% (b) 60% - 80% (c) 40% - 60%

(d) 20% - 40% (e) 0% - 20%

3. Statement of the title / Keyword selection

(a) Highly Adequate (b) Adequate to some extent

(c) Not adequate

C. At what extent statement of the title / keyword selection is adequate (state in percentage)



- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

4. Literature review

- (a) Very appropriate
- (b) Moderately appropriate
- (c) Not appropriate

D. What extent the researches are appropriate in review

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

5. Methods followed

- (a) Very adequate
- (b) Adequate to some extent
- (c) Not adequate

E. What extent the researches follow method (state in percentage)

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

6. Objectives / Research questions

- (a) Accurately answered
- (b) Moderately answered
- (c) Not answered properly

F. At what extent researches providing a balanced objectives/ research questions

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

7. Design of the study

- (a) Very appropriate
- (b) Moderately appropriate
- (c) Not appropriate

G. What extent research design appropriate to studies (state in percentage)

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

8. Population / sample

- (a) Clearly explained
- (b) Mentioned
- (c) Not Mentioned

H. At what extent population / sample are clearly stated (state in percentage)

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

9. Sample size

- (a) Highly Adequate
- (b) Adequate to some extent
- (c) Not adequate

I. At what extent research follows adequate sample size (state in percentage)

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

10. Selection of techniques / tools

- (a) Very appropriate                      (b) Moderately appropriate  
(c) Not appropriate

J. At what extent research follows appropriate selection of techniques/ tools

- (a) 80% - 100%                      (b) 60% - 80%                      (c) 40% - 60%  
(d) 20% - 40%                      (e) 0% - 20%

11. Quality of tool used

- (a) Highly satisfied                      (b) Moderately satisfied  
(c) Not satisfied

K. At what extent research using quality of tool (state in percentage)

- (a) 80% - 100%                      (b) 60% - 80%                      (c) 40% - 60%  
(d) 20% - 40%                      (e) 0% - 20%

12. Method of data collection

- (a) Highly Adequate                      (b) Adequate to some extent  
(c) Not adequate

L. At what extent method of data collection is adequate (state in percentage)

- (a) 80% - 100%                      (b) 60% - 80%                      (c) 40% - 60%  
(d) 20% - 40%                      (e) 0% - 20%

13. Analysis techniques

- (a) Highly Adequate                      (b) Adequate to some extent  
(c) Not adequate

M. At what extent the technique of analysis adequate to research (state in percentage)

- (a) 80% - 100%                      (b) 60% - 80%                      (c) 40% - 60%  
(d) 20% - 40%                      (e) 0% - 20%

14. Implications of study

- (a) Highly satisfied                      (b) Moderately satisfied  
(c) Not satisfied

N. At what extent implications of study following by research

- (a) 80% - 100%                      (b) 60% - 80%                      (c) 40% - 60%  
(d) 20% - 40%                      (e) 0% - 20%

15. Study leading to further researches

- (a) Highly satisfied                      (b) Moderately satisfied  
(c) Not satisfied

O. At what extent research leading to further researches (state in percentage)

- (a) 80% - 100%                      (b) 60% - 80%                      (c) 40% - 60%  
(d) 20% - 40%                      (e) 0% - 20%

16. Research framework

- (a) Excellent                      (b) Average                      (c) Poor

P. At what extent research framework following (state in percentage)

- (a) 80% - 100%                      (b) 60% - 80%                      (c) 40% - 60%  
(d) 20% - 40%                      (e) 0% - 20%

17. Findings of the study

- (a) Highly Adequate
- (b) Adequate to some extent
- (c) Not adequate

Q. At what extent findings of the study adequate in research (state in percentage)

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

18. Interpretation of results

- (a) Highly Adequate
- (b) Adequate to some extent
- (c) Not adequate

R. At what extent interpretation of results adequate (state in percentage)

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

19. Reference / bibliography

- (a) Highly Adequate
- (b) Adequate to some extent
- (c) Not adequate

S. At what extent research provide reference / bibliography (state in percentage)

- (a) 80% - 100%
- (b) 60% - 80%
- (c) 40% - 60%
- (d) 20% - 40%
- (e) 0% - 20%

20. Suggestions that you can give to improve the quality of Educational Research

21. Personal comments