



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

IJIRSET

International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 12, Issue 8, August 2023

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.423

9940 572 462

6381 907 438

ijirset@gmail.com

www.ijirset.com

Lessons Learned and Experience Gained from Adjudicating M.Phil. dissertations and Ph.D. Theses

Dr. Satish Kumar Thalladi

Assistant Professor, Department of Journalism and Mass Communication, Osmania University,
Hyderabad, India

ABSTRACT: Any research work must follow relevant and appropriate research methodology to get required findings and conclusions. M.Phil. dissertations and Ph.D. theses must be written keeping style sheet in view. Because, there should be uniformity in presenting the representative data and systematic analysis. Research must be done with scientific rigor. A research document presentation must follow pre-determined structure. Thought process of research topic idea must evolve sequentially in every chapter till the conclusion chapter in the end. Introduction, Review of literature, Statement of the problem, Rationale for the study, Objectives of research, Hypothesis, Research methodology, Data Presentation and Analysis, Findings of the study, Summary and Conclusions, Ideas and suggestions for further research, Bibliography and Annexure are the important parts in a research document. Generally, now-a-days dissertations and theses written by research scholars are lacking academic writing standards. Research scholars must learn art of academic writing skills and practices. Intense academic writing practice must be done before writing the document. Moreover, research scholars must develop a synopsis before conducting research. Because, synopsis can act as a guiding compass for the researcher. If the proposed research methodology is complex it has to be resolved at synopsis level itself that could save lot of time for the researcher later on while conducting research. Evaluating dissertations and theses is very taxing and tedious process. As many research scholars do not follow research guidelines and ethics. It is a tough task for adjudicators to read and write reports critically and analytically.

KEYWORDS: M.Phil. dissertations, Ph.D. theses, Adjudication, Problem statement, Research methodology, Style sheet, Conclusions, Bibliography etc.

I. INTRODUCTION

Adjudicator needs insight and understanding of research methodology, problem solving, research design, hypothesis, report writing, statistics, and referencing. Researcher should have deep understanding on quantitative and qualitative research methods. Researcher should learn the art of writing with clarity and precisely. I have shared lessons learned and experience gained from examining six Ph.D. theses and two M.Phils., from mass communication and journalism field. These research documents were thoroughly examined and adjudication reports were written. Generally, adjudicators look for quality, content and presentation in dissertations and theses.

Topic related issues: Ph.D. theses and M.Phils. all reported topic related issues. But, they needed more intensive research work to get to bottom and breadth of the research objectives/ questions. Researcher has to unfold and unearth useful findings from the research work.

Title of the theses and dissertations: In many of theses and dissertations I examined, title of the theses and dissertations were not adequately framed. Title of theses or dissertations must be focused on specific areas. It should also divulge purpose of research.

Acknowledgements, content page, list of abbreviations, list of tables and list of figures: Almost all the theses and dissertations I examined had acknowledgements page. In many theses and dissertations ‘Content page’ was not properly written. More caution should have been observed while written ‘Content page’. As ‘Content page’ gives details of chapters and topics present in the theses. List of abbreviations page was missing in few theses. Adequate precaution was not followed while writing list of abbreviations. List of tables page was missing in most of the theses or dissertations I examined. List of tables gives the reader in which page which table is present. List of figures was missing in most the theses I examined.

Introduction: In general, first chapter of any theses or dissertation begins with ‘Introduction’. All the theses and dissertations had “Introduction” chapter to their research work. Introduction to theses and dissertations were comprehensively written which is closely related to the research area. “Introduction” chapter discussed subject of study in all the theses and dissertations I examined. In one Ph.D. theses and M.Phil. dissertation “Introduction” chapter was significantly lengthy. I suggested the research scholars to re-edit the “Introduction” chapter and resubmit the thesis and dissertation.

Scope of the thesis: My general observation examining Ph.D. theses and M.Phil. dissertation is that, researchers lacked clarity in fixing scope of the study. Sometimes it is very narrow and sometimes it is too broad. According to standard research guidelines, scope of the study must be focused based on the objectives. It would have been better, had the researchers’ scope had been broad enough and meaningful. Scope of the research area must be enough to find out useful conclusions to area of study. Few Ph.D. theses mentioned clearly about scope of the study. In M.Phil. research scholars did not mention anything clearly about scope of the study. Scope of the study is very important as it clearly delineates the circumference of the research area. It tells setting and circumstances of the research study.

Originality, contribution and significance: All the Ph.D. theses and M.Phil. dissertations, I examined were original. But, their contribution to treasure trove of research area is questionable, because of execution problems. Few Ph.D. theses did make original contribution. M.Phil. dissertations were not rational and were not significant for conducting research. In the beginning itself, researchers must spend ample time in picking up valuable research problem. It would be better, if it is original and contributes to area of research study. All the theses I examined, were empirical studies. A good research topic will have claim in it. Most of the theses and dissertations lacked any research claim in them. Most of the theses or dissertations are not replicable, transparent and reproducible.

Material capable of publication from the thesis or dissertation: Only few Ph.D. theses had material capable of publication. Quality research material was lacking for publication from large number of theses and dissertations, I examined. Research problem must contribute to knowledge on the subject matter or useful to resolve an issue belonging to the society. Research scholars generally take up superficial topic for conducting research. They don’t apply their mind to pick up right topic. Quality topic generates content useful for publication in standard research journals. Supervisors/ Guides must advise research scholars to do adequate review of literature to find research gap to formulate a research problem. If the research problem is valuable, the findings may lead to quality publications.

Publications existing: Publications on topics of Ph.D. theses and M.Phil. dissertations, I examined are already existing. Most of the research works had research gap. None of the research work is done with exploratory research method. Existing publications give an idea to conduct research meticulously.

II. RELATED WORK

Review of literature---Coverage: Most of the research reports, I examined did not cover review of literature properly. Lot of irrelevant literature is incorporated to make the research work bulky, rather than adopting scientific outlook. Relevant review of literature based on objectives must be incorporated. A good research work will have comprehensive coverage of review of literature unless scholar is adopting exploratory research. Review of literature helps in formulating objectives. There are various types of writing review of literature, scholars must adopt one convenient type in writing review of literature.

Review of literature---inaccuracy: Many inaccuracies were found in review of literature pertaining to both Ph.D.'s and M.Phil. research documents. Was advised to remove irrelevant material and put relevant material based on objectives. Few researchers incorporated review of literature unscientifically. Accurate relevant review of literature must be incorporated in the research documents. Research scholars must take adequate precautions while incorporating review of literature. They must incorporate previous literature with accurate details.

Review of literature---use/application: Only few items of review of literature were applicative oriented. Many were just giving information on the topic of research. Researchers did not pay any attention to review of literature having applicative in nature. Probably, researchers might not have been guided professionally. If the research topic is applicative oriented, then review of literature can be applicative in nature.

Statement of the problem: Only few research scholars, wrote "Statement of the Problem" for their thesis or dissertation. Statement of the problem clearly mentions the problem to be solved by conducting research. Statement of the problem also mentions different variables to be studied. Statement of problem clarifies research problem to be studied.

Need for the study/ Justification of the work done: All the theses and dissertations I examined, found need for study for conducting research. After finding 'research gap', Justification for the research must be written.

Contribution to the field: Almost all the research studies I examined, contributed to the field of the study. Research studies must contribute to the treasure trove of knowledge to the field of study, otherwise there is no use in conducting research.

Technical soundness: Only few research studies did have technical soundness and major studies did not show technical soundness. Good research work must have quality technical soundness.

Theoretical/ Conceptual framework: No theses or dissertation I examined wrote anything about theoretical or conceptual framework. Generally, research has to be grounded in theoretical framework or conceptual framework to take it forward. Theoretical or conceptual framework gives background for the research work. Writing theoretical or conceptual framework is essential in conducting research.

Timeliness of the work: Most of the research studies I examined were timely in nature. Old topics or old data has no value in research domain. Topics of research must be topical in nature. Therefore, findings or conclusions will be useful or applicative.

Research design and approach: Appropriate research design and approaches are found in only few research reports. Intensive and comprehensive research design is lacking in many research reports. Researchers would have paid attention to learn about research design and suitable methodologies to be employed as per the requirement of the research problem. Researcher must explore various types of research designs and methodologies to know exact findings and conclusions. For conducting objective research,

research design and approach must be appropriate. Depending on the topic of research, research design must be chosen. Researcher must think with fore vision and should be able to gather data and analyse for results carefully. Research design: No thesis wrote anything about type of research design adopted in their research work. There are several types of research designs. Research scholars should attend “Research Methodologies Workshops” to get familiar with various research designs and their applicability.

Objectives/ Research questions: All the theses and dissertations have given objectives. Objectives also lacked clarity in few theses. In objectives, variables have to be specified. Objectives must be clearly specified so that appropriate statistical technique will be employed to find out the conclusions. Similarly, research questions also must lead scholar to employ relevant qualitative method to find conclusions. Though research scholars mentioned about mixed methodology, qualitative research was missing in many research documents I examined. Quantitative research has objectives and qualitative research has research questions. Objectives were given in many theses, but research questions were missing in theses and dissertations. It seems that research scholars just mention mixed methodology for namesake.

Hypothesis: No research scholar wrote anything about hypothesis in their thesis or dissertations, I examined. All the research scholars adopted quantitative research methodology. Hypothesis helps in performing relevant and appropriate statistical tests. Generally, objectives are broad in nature and hypothesis is focused in nature. In qualitative research, hypothesis is tested or hypothesis is generated in the form of clear statement. Of course, it is not mandatory to write hypothesis in research documents. Generally, hypothesis is developed based on objectives.

III.METHODOLOGY

Most of the researchers used quantitative and qualitative research methodology in principle. But, they did not employ them perfectly while conducting research. Methodology is applying system of methods for conducting research work. One researcher used Case study method for doing his Ph.D. In Case study method, multiple methods are used to gather data and analyse the data. By employing Case study method, a problem is deeply and broadly researched. Methodology is like compass, which drives a researcher to conduct research. It also helps in developing data gathering instrument and also analyse the data. Most of the researchers failed to understand methodology with clarity. Their data gathering instruments were not so perfect in gathering data for analysis. Most of the researchers used Survey method. They gathered data through questionnaire.

Population/Universe: Most of the researchers had appropriate and relevant universe to collect sample. In few Ph.D. theses and M.Phil. dissertations population was not selected appropriately. Scholars have to select population from which data can be gathered with the help of a sample.

Sampling method: Probability and non—probability sampling methods are generally used in gathering data. Most of the researchers used non-probability sampling method, as it is convenient to gather data. Survey was most popular method to gather data. None of the scholar’s sample was close to perfection.

Sample frame: In all the theses, there was no mentioning of sample frame in research methodology chapter. Sample frame is the list of name of the population from which sample is drawn. It may not sometimes include all the names. If possible only sample frame has to be given, though it is not mandatory.

Time dimension of the research: Cross-sectional research or longitudinal research is not mentioned in any of the theses, I examined. Time of data gathering will tell us when was data gathered. Whether it is cross-sectional or longitudinal. In cross-sectional research, only one specific time data is collected. In longitudinal research, data is gathered over a period of time.

Data gathering instruments: Structured questionnaire was used as data gathering instrument in most cases, as researchers have adopted survey method from quantitative methodology. Content analysis was another popular qualitative method used for data gathering in theses I examined.

i) Validity: Questionnaires were not administered for validity in the theses and dissertations I examined. Questionnaires have to be tested for content validity, face validity, and construct validity etc. Validity is a relationship between test and what it intends to measure.

ii) Reliability: Cochran's Alfa test was not done for reliability in most of the research documents I examined. Reliability test is done to know the consistency of the measurement or calculation or specification of the items used in the questionnaire.

Parametric and non-parametric test: No theses or dissertation I examined wrote anything about parametric test or non—parametric test done. Type of test must be based on reliability test score. If the Cochran's Alfa is less than 0.05, then parametric test must be done, if it above 0.05 then non—parametric test must be done. Though most of the theses adopted quantitative methodology, nowhere hypotheses were written. A hypothesis helps in picking up relevant and appropriate statistical test to be conducted.

"Data analysis is the process of bringing order, structure and meaning to the mass of collected data. It is a messy, ambiguous, time-consuming, creative, and fascinating process. It does not proceed in a linear fashion; it is not neat. Qualitative data analysis is a search for general statements about relationships among categories of data. (Marshall and Rossman, 1990:111). Hitchcock and Hughes (1995:295) take this one step further: "...the ways in which the researcher moves from a description of what is the case to an explanation of why is the case."

Data presentation, analysis and interpretation: In the theses I examined, descriptive statistics were employed that were basic statistics like standard deviation, chi-test, etc. If there is an opportunity inferential statistics must also be employed depending on objective and hypothesis. By employing inferential statistics, intricate patterns in the data can be found out. Most of the researchers did not have an idea about inferential statistics. This is what I understood. Data analysis was not done as per research methodology in many theses I examined. Research scholars must have referred standard theses to understand the method of analysis and presentation. Quantitative and qualitative data analysis and presentation differ from one another. Coding, classification Tools of data analysis—SPSS for quantitative analysis are used and ATLAS.Si,Nvivo and MAXQDA software tools are employed for qualitative data analysis. Information regarding coding of data, classification of the data and editing of the data was not presented in any of the research documents I examined.

Visual presentation of data: In most of the research documents I examined, scholars did not present adequate data in the form of graphics or tabular form. Charts or any other form of visual presentation of data enriches easy understanding of data interpretation and analysis.

Analysis and reporting: Most of the researchers adopted mixed methodology. But, they used only quantitative technique--- qualitative analysis and reporting were missing. It reflects researchers' lack of proper understanding of qualitative research methods. Few researchers lacked understanding of principles of analysis and reporting of research work. As many researchers used quantitative techniques, data analysis must be done objectively as they analyse numbers. On the contrary, there is a possibility of qualitative data being analyzed subjectively. So, adequate precautions must be taken to analyze qualitative data objectively. A research scholar must spend considerable amount of time analyzing the data. Scholars must try to unfold associations, differences or relationships between or among different independent and dependent variables. Instead of scholar analyzing the data with pre-determined objectives or hypothesis, scholar must try to spend time with the data and explore analyzing intricate associations, differences or relationships between or

among dependent and independent variables. So that enriched findings or conclusions can be obtained from the data.

Adequacy of data and information: In most the theses I examined, there was no adequacy of data and information. The methodologies they adopted were relevant and appropriate, but data gathering instruments were far from perfect. Especially, qualitative data and analysis was missing from their study. Researchers did not understand the importance of developing appropriate data gathering instrument based on objectives or research questions. Research scholar must contemplate deeply before data gathering. Researcher has to gather data adequately depending on research questions or objectives. Proper tools of data collection must be employed be it primary or secondary data.

Accuracy of the data presented: In only few theses I found accurate data. In many research documents quantitative data was not based on hypothesis or objectives. Quantitative tests have to be performed based on hypothesis preferably. Examiners are selected based on expertise, experience and skill: To adjudicate a thesis, a research supervisor has to guide research scholars pursuing various topics using different data gathering instruments and research methodologies.

Organisation of the theses: Only few theses had proper organisation. Research scholars did not show special interest to organisation of their theses or dissertations. Theses have to be organised in such a way so that thought of research idea has to flow freely from “Introduction” to “Conclusion” chapter effortlessly.

Practical applications/ Utility: Most of the topics of the theses I examined, do not have any practical utility or application. These theses will remain in shelves of the department or attics of the research scholar’s homes. Research topics must have practical application and utility.

Adequacy of references: Many of the theses had adequacy of references. Especially in M.Phil. dissertations few references were missing. Research scholars must pay special heed to provide adequate references. If references are given end of the chapter, it will be easy for the readers.

Clear explanation of the work: Only few theses had clear explanation of the work. Many lacked clarity. Academic writing was missing in research works I examined. Academic language must be used in writing theses. Theses or dissertations must be self—explanatory. Even common man with basic knowledge must be able to understand outline of the research study done. So, theses have to be focused and concise.

Sufficient details of the methods/ techniques adopted: Many of the theses I examined lacked sufficient details of the methods/techniques adopted in their research work.

Clarity and unambiguity of the language: No research scholar gave importance to clarity of thought and expression. Research scholars did not consider language to be important. Academic writing is different from normal writing.

Style sheet: No theses or dissertation strictly followed style sheet like APA, MLA and Chicago etc. Scholars must deeply study any one of the style sheets and follow its guidelines while writing the thesis or dissertation.

Freedom from redundant/ irrelevant material and errors: Most of the theses were not free from irrelevant material and errors. There was redundant material in most of them.

Limitations of the study: Only in few theses, limitations of the study were written. Limitations give under which circumstances the study was conducted. So, conclusions can be interpreted and analyzed correctly. Limitations also give clarity for further research.

Area of the study: In most of the theses, information about the area of research was written. But, in most of the theses or dissertations information provided is inadequate.

Operational definitions: No research document had sub-topic on operational definitions. Researcher must incorporate operational definitions in research methodology chapter. Operational definitions of the words used in the research documents will unfold in which context words were used in writing the theses.

Communicative competence----substantive/editorial: Most of the researchers lacked sustentative communicative competence. Communication is an art. Researchers must work on improving communication skills. Subsequently, communicative competence will improve analysis and reporting of data. Researcher must sometimes corroborate the findings with already known research findings. Research reports must be written with clarity. So that reports are self-explanatory and easily understandable by common man. Typo errors and grammatical mistakes were also found in few research documents.

Conversational tone usage in thesis: Most of the research reports had conversational tone, because researchers did not pay heed to tone of writing. Conversational tone should be avoided at any cost. Academic writing must be practiced thoroughly. First person usage was not found in research documents.

Intellectual association with thesis: Few Ph.D. theses had intellectual association. Other research document's content did not exhibit intellectual association with the theses.

Citations: In most of the dissertations and theses I examined, citations from previous research works were not incorporated adequately. It would have been appreciable, had the research scholars done due diligence to incorporate citations from previous research work. A standard research work will have more citations from previous studies either they reinforce or corroborate the conclusions drawn.

Triangulation: Research documents I examined wrote about triangulation, but did not perform comparison between qualitative and quantitative methods findings. May be could not conduct qualitative research, as they are not aware about how to conducting it. Triangulation needs comparison of conclusion from two different methods.

Findings: In almost all the theses and dissertations, "Findings" chapter was present.

Summary and Conclusions: Few theses had summary and conclusions chapter. Only few theses had conclusions acceptable, by and large the conclusions were not so perfect as they lacked technical soundness. Summary was also not done properly.

Bibliography: All the theses had bibliography chapter. Few were comprehensive and few were inadequate did not reflect quotes from secondary sources. Appropriately writing bibliography will reduce problems of plagiarism and copyright issues.

Annexure: All the research documents had questionnaires in annexure. Research articles were also part of few Ph.Ds. annexures.

Copyright: I did not find copyright permission taken by researchers for the material incorporated.

Plagiarism: Almost all the dissertations and theses I examined had plagiarism report attached at the end. They had plagiarism less than 10% as stipulated by UGC.

Quality of the research and researchers: Only few researchers seemed to be curiosity, had good analyzing skills and could observe patterns and draw conclusion on the data gathered as evidence. Many researchers

lacked sense of detail and could not spot inconsistencies and errors in the data gathered. Many researchers did not explore the problem of research in multiple angles, so that research problem could be probed deeply and comprehensively. Researchers must refine their objectives or research questions. Because, quality of the research depends on the objectives. For instance, Cummings et al. (2013) suggest using FINER criteria to create or evaluate a research question. According to this set of criteria, a good research question is: F – feasible I – interesting N – novel E – ethical R – relevant. A good quality research must be systematic adopting appropriate research methodology. Be it qualitative or quantitative or mixed methodology. So that research results are valid and reliable. A good researcher must acknowledge work done in the area of research done previously. A good researcher must collect relevant empirical data and employ appropriate data analysis depending on objectives or research questions. As empirical data collected is unbiased and objective.

A researcher must be careful to collect data from a representative sample of target population so that results can be generalizable. A researcher must analyze data applying logic. Both inductive and deductive logic. Golesh et al. (2019) proposed that logic aids researchers by helping them arrive at valid conclusions. Aside from these applications of logic, logical reasoning can also make more research more meaningful, especially if the research is to be used in the context of decision-making (Mehran University of Engineering and Technology, n.d). A good research finding has external validity. Good research has external validity and reliability if its results or findings can be applied to the real world (Glen, 2015). There are two types of external validity for researchers to consider: population validity and ecological validity (Bhandari, 2021a). Population validity is generalizability of research findings to sample of the population. Moreover, ecological validity is applying findings of research to the real world circumstances or settings. Therefore, external validity upholds good quality of research as the findings are generalizable in a scientific study. Findings of good research are transferable, reproducible and replicable.

In good quality research, researcher will also give suggestion for further research. A researcher must follow ethics of high standard and uphold integrity, accountability and honesty. (Resnik, 2020) emphasizes the importance of learning how to interpret and apply various ethical standards in research, especially since existing ethical codes won't cover every situation. Some of the most common violations of research ethics include:

- Falsification – This involves the manipulation or omission of data or findings.
- Fabrication – This involves making up data or results and presenting these as accurate.
- Plagiarism – This refers to the use of another person's work without giving due credit.

Self-citation and self-referencing must be stopped by the researchers as they have become popular now-a-days. A researcher must avoid certain drawbacks while conducting research. As Shreffler and Huecker (2021) list some of the pitfalls common in the research process: 1) Underestimating the commitment required by a research study – The process of properly conducting a research study and getting it published takes a significant amount of time and effort. Researchers must be prepared not only for lengthy data collection and analysis methods but also for setbacks, such as subjects dropping out of the study and article revisions. 2) Searching for up-to-date, high-quality references – Researchers may also encounter challenges in finding related literature or references that are relevant and up-to-date. This is why it's important to adopt literature review strategies early during the research process. 3) Not limiting variables of data to be collected – It's easy to get carried away during the data collection phase and collect as much data as possible. To ensure that the data collection period is used as efficiently as possible, researchers should ignore irrelevant variables in data and focus on the variables that will be most beneficial to the study.

IV. CONCLUSION

Research scholars must thoroughly study research methodology before conducting research. Not only that, scholars must have idea on research design as well as on other research techniques. Scholars must also

uphold and follow research ethics truthfully. Conclusions of research must be interpreted with in given limitations. If it possible they have to be generalized. Research documents I examined should have followed proper research process and research ethics to the core to get valuable conclusions.

REFERENCES

- [1] Acker, S., Black, E. & Hill, T. (1994) Research students and their supervisors in education and psychology, in: R. BURGESS (Ed.) Postgraduate Education and Training in the Social Sciences: processes and products, Higher Education Policy Series (London, Jessica Kingsley).
- [2] Bhandari, P. (2021a). External validity | Types, threats & examples. Scribbr.
- [3] Bowen, W.G. & Rudenstine, N.L. (1992) In Pursuit of the PhD (Princeton, NJ, Princeton University Press).
- [4] Cummings, S. R., Browner, W. S., & Hulley, S. B. (2013). Conceiving the research question and developing the study plan. *Designing clinical research*, 4, 14-22. Wolters Kluwer Health.
- [5] Glen, S. (2019). External validity definition & examples. *Statistics How to*.
- [6] Golesh, D., Baba Girei, Z., & Ibrahim, F. (n.d.). The role of logic in research. *International Journal of Scientific& Engineering Research*, 10(10), 894-904. IJSER.
- [7] Holbrook, A., & Bourke, S. (2004). An investigation of PhD examination outcome in Australia using a mixed method approach. *Australian Journal of Educational & Developmental Psychology*, 4, 153–169.
- [8] Holbrook, A., Bourke, S., Lovat, T., & Dally, K. (2004). PhD theses at the margin: examiner comment on re-examined theses. *Melbourne Studies in Education*, 45(1), 110–129.
- [9] Holbrook, A., Bourke, S., Lovat, T., & Dally, K. (2004). Qualities and characteristics in the written reports of doctoral thesis examiners. *Australian Journal of Educational & Developmental Psychology*, 4, 126–146.
- [10] Holbrook, A., Dally, K., Cantwell, R., Scevak, J. Bourke, S., & Lovat, T. (2003). Doctoral Examiners as Supervisors, HERDSA Conference, Christchurch, New Zealand, June.
- [11] Hitchcock, G., & Hughes, D. (1995). *Research and the teacher* (2nd ed.). London: Routledge.
- [12] Lawson, A., Marsh, H., & Tansley, T. (2003). Examining the examiners. *Australian Universities Review*, 46(1), 32–36.
- [13] Marshall, C. and Rossman, G.B. (1999) *Designing Qualitative Research*. 3rd Edition, International Educational and Professional Publisher, California, 35.
- [14] Mehran University of Engineering and Technology. (n.d.). Criteria of good research. MUET-CRP.
- [15] Noble, K. (1994) *Changing Doctoral Degrees: an international perspective* (Buckingham, Society for Research into Higher Education & Open University Press).
- [16] Pitkethly, A., & Prosser, M. (1995). Examiners' comments on the international context of PhD theses. In C. Mcnaught, & K. Beattie (Eds.), *Research into higher education: Dilemmas, directions and diversion* (pp. 129–136). Melbourne: HERDSA.
- [17] Powell, S., & Green, H. (2003). Research degree examining: Quality issues of principle and practice. *Quality Assurance in Education*, 11(2), 55–63.
- [18] Resnik, D. (2020). What is ethics in research & why is it important? National Institute of Environmental Health Sciences
- [19] Shreffler, J., & Huecker, M. R. (2021). Common Pitfalls in The Research Process. NCBI.
- [20] Top 10 Qualities of Good Academic Research. <https://research.com/research/top-10-qualities-of-good-academic-research>. Retrieved on 22/09/2023.



INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor: 8.423



ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

9940 572 462 6381 907 438 ijirset@gmail.com



www.ijirset.com

Scan to save the contact details