

Promotion of Research Culture: Enhancing Quality in Higher Education

Sudershan Kumar Pathania

Research Scholar, PG Department of Education, University Of Jammu, Jammu (J&K) India

Abstract: The bases of any research are adequacy of research proposal, research summary, research abstract and the research report. The quality of the research is estimated on the basis of research report. Research may be qualitative or quantitative. In every research area or subject, our knowledge is incomplete and problems are waiting to be solved. Research increase our knowledge and understanding. Research is an attempt or an intentional act to discover the facts, revise the laws and theories or is a practical application of all these and research report is the key aspect of any research. A research report can be based on practical work, research by reading or a study of an organization or industrial/workplace situation. The body of research comprises of the introduction, aim of the study, hypothesis, variables, rationale/significance of the study, limitations, review of related literature, the sample, methods, tools and techniques, analysis and interpretation, results, conclusion and suggestions followed by the bibliography, and the appendices which include the tables, graphs and figures, if any including and the style of typing and many more things. It avoids the repetition of the problem and saves time, energy and money. This paper has offered an overview of, what research is importance of research, the stages involved in writing a research report. The aim of this paper is to help and motivate the researcher to conduct research to improve quality in education by presenting a systematic way to write a research report.

Keywords: Hypothesis, Proposal, Rationale, Review, Hypothesis, Analyses, Appendices.

I. INTRODUCTION

India aspires to become a world knowledge hub. In order to achieve this, the entire education system in the country has to become sound. It is the right time to address the higher education system in the country in addition to Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA), to improve school education. India has one of the largest higher education systems in the world comprising of 700+ universities, 35,000+ colleges and a number of technical/professional institutions. The institutional framework of higher education system consists of Universities established by an act of Parliament (Central Universities) or State Legislature (State Universities), Deemed Universities, Institutes of National Importance, Institutions established by State Legislative Act, colleges affiliated to a University, professional and technical institutions amongst others. Given the vast network, India's Gross Enrolment Ratio (GER) in higher education, currently pegged at 19%, is far below the world average. Further, the quality of most of the higher institutions is questionable as no Indian Institute is included in global Top 200 list.

Current Status of Higher Education Sector in India

Structure of Higher Education

Age(year)	General	Technical/Professional
>23	Doctoral Education	
18-23	Post Graduate Education (General)	Post Graduate Education (Technical/Professional)

	Graduation Education (General)	Graduation Education (Technical/Professional)
16-18	Higher and senior Secondary Schooling	Polytechnic Education (Technical)
14-16	Higher and senior Secondary Schooling	
6-14	Elementary Education	

Source: Deloitte analysis, Annual Status of Higher Education (ASHE-2013),

The general education mainly consists of higher education courses in arts, commerce and science, the technical education on the other hand comprises of programmes of education, research and training in engineering technology, architecture, town planning, management, pharmacy and applied arts and crafts. Professional education includes courses in medical education, law and other specialized fields.

The break-up of number of Higher Education Institutions by type

S. No	Type Of Institution	Share (Percentage)
1	State universities	(44%) is the highest
2	Private universities	(22%),
3	Deemed universities	(18%),
4	Institutes of national importance	(10%)
5	Central universities	(6%).

Source: Annual Status of Higher Education in States and UTs 2013

II. RESEARCH

Research is an essential component of a higher education system. One of the input parameters to ascertain progress in research is the quantum of spending on research and development activities. As per a study [1], India's share in R&D spending to the total global R&D spending stands at 2.1% while the share of China is 12.5%. Figure 15 compares the R&D spending of India and China with other developed economies. There is clearly a need to increase spending on R&D as we move forward to become a knowledge economy.

Share of Total Global Research&Development (R&D) Spending

S .NO	Country	Percentage(Total Global Spending)
1	India	02.10%
2	China	12.50%
3	Japan	12.60%
4	Europe	25.00%
5	United State(US)	33.60%
6	Other	16.00%

Source: Battelle, R&D Magazine -2009 RD Funding final report

Another important parameter to measure research is the enrolment and award of PhDs. The number of PhDs awarded in India has doubled over a ten year period from 1998 to 2007[2]. The study [3] also indicates that only 0.25% of the students who enrolled at the graduate level get themselves enrolled for PhD.

Number of PhD's awarded in India, China, and USA

S. No	Year	India	China	USA
1	2002	11,974	14,706	40,024
2	2003	15,328	18,625	40,024
3	2004	17,853	22,593	40,757
4	2005	17,898	26,392	42,112
5	2006	18,730	36,247	38,195
6	2007	20,131	41,469	48,112

Source: Sunder. S. Higher Education Reforms in India, Yale University 2010

The number of PhDs produced in India grew at an annual rate of about 9% during the period from 2002 to 2007, whereas the number of PhDs awarded in China grew at a rate of over 18% [4] during the same period.

Including number of institutions, enrolment in higher institution, expenditure and growth rate to produce number of PhDs awarded a university student may be required to write a variety of reports and research report is one type that is often used in the sciences, engineering and psychology. Quality in higher education to a great extent depend on writing a research report

Writing a Research Report:

General Format Parts of Research contains three parts and are

1. Preliminary material (Front matter)
2. Body of the report
3. Supplementary material (End matter)

1. Preliminary material (Front matter)

➤ Title Page: -

- Keep it short
- Use a subtitle if necessary
- Interesting are better

➤ Acknowledgements page:- Recognize the

- Research guide,
- Related institutions
- Teachers
- Students and
- Those who are directly or indirectly involved in the work.

➤ Abstract:-

- A 200-300 word non-technical summary of your research project.

➤ **List of Contents:-**

- Chapterization of the research(Body of the report)

➤ **List of Tables:-**

- Showing list of content in tabulation form

➤ **List of Figures:-**

- Showing pictures, graphical representation, photos, diagrams etc.

2. Body of the report

➤ **Introduction:-**

- Address the topic in the first sentence
- Concept/Define the related terms used in the research
- State the objective of the study
- State need and significance
- State the hypothesis
- Limitation/delimitations of the study

➤ **Literature review:-**

- A discussion of findings from other researchers
- Critical appraisal of other's theories
- A discussion of findings from other researchers
- Critical appraisal of other's theories

➤ **Methodology:-**

- Details method and procedures
- Sample
- Tool used
- Administration of the tool
- Discusses the reasons for choosing your methods and procedures
- Tabulation and Categorization of data
- Interpretation of data

➤ **Results:-**

- Details the main findings/conclusions
- Provides a summary explanations of results
- Accept or reject hypotheses if you have any

➤ **Discussion:-**

- Develop a logical argument about what your results mean.
- Your results provide evidence to illustrate and support your argument.

- Identify potential errors--What might invalidate your results?
- How might you improve research design?
- Limitation/Suggestions for further research

➤ **Conclusions:-**

- A restatement of the research problem
- A summary statement of main findings and their significance.
- Shortcomings of the research
- Agenda/suggestions for future research

3. Supplementary materials (End matter)

➤ **Reference list:-**Consulted material

- Books.
- Articles,
- Magazines,
- Newspaper,
- Dissertations,
- Survey etc

➤ **Appendices:-**Showing tool used (questionnaire), Raw score list ,answer key

➤ **Suggestion for researcher**

Polish Your Report

- The final step is checking your report to ensure you have followed all of the guidelines as outlined in your course information.

Suggestion to Improve Quality in Higher Education

- ✓ Make higher education at door step
- ✓ Flexibility in admission/enrolment
- ✓ Improving Quality in teacher education
- ✓ Encourage Private-public participation
- ✓ Encourage Local talent
- ✓ Easy access to higher educational institutions
- ✓ Stress on Gender Disparities,
- ✓ Enforcing high level of accreditation
- ✓ Addressing regional disparities
- ✓ Concentrating on Language part (Medium)

III. CONCLUSION

Research is the concerned of all areas including area of education .It is needed in history of education, philosophy of education , psychology of education, theories of education, financing levels of education, evaluation of education, enrolment and many more areas. Every area needs that research report is to be prepared and to be presented as an

important document for future use/ reference and implementation of the results if appropriate. To improve the quality of any system we should stress on research and style of reporting the research.

REFERENCES

- [1] Source : Battelle, R&D Magazine -2009 RD Funding final report
- [2] Source: Trends in Higher Education - Creation And Analysis Of A Database of PhDs In India, National Institute Of Advanced Studies
- [3] Source: Trends in Higher Education - Creation And Analysis Of A Database of PhDs In India, National Institute Of Advanced Studies
- [4] Source: Sunder. S. Higher Education Reforms in India, Yale University 2010
- [5] Annual Status of Higher Education(ASHE) in States and UTs 2013
- [6] Learning Guide © 2008 The University of Adelaide
- [7] www.google.com