

Research Practices: Structure & Components

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Introduction

There has been a thorough utilization of skills and knowledge in attaining the biggest achievements. The more the focus on subjective demands of work, the more precise are the results. Indian framework of research activities is dependent on components described in Table 1. Coordination between research ethics and result findings should be much more intense than the research work lags arising out of false positives, the ones generated by self for meeting the demand of objectives concerned. However, certain challenges are dually admired by research personnel like economic input and likely output. Haste makes waste is a common briefing background for all the unpublished work. Moreover, the likely inputs of command centre towards achieving goals in a decided time add to yet another decline of research ethics. Contributing towards society by solely following the research details makes less vulnerable educational society. The common interest in developing a goal or, an aim should be harvested out with a research path. So there are certain things of research structure which should be briefed about before making any legal entry of both, student and subject concerned.

1. Research Ethics
2. Research Goals
3. Command Centre of Research
4. Research Path
5. Results & Society

The contribution of all these described above makes the education of an individual successful. The research tracks need to be modified with any crucial instrumental or, theoretical implementation of the topic and subject concerned. The making of an invention in a lab need not be sacrificed with repetitive protocols and already procrastinated results. So

the crucial 5 structural body of research practices are truly defining bodies of kind of research status that is being organized, or organized just well.

1. Research Ethics

All the brief points written here are to be analyzed within and then proceed towards how goals should look like.

- In generation of standard curve graphs for same protocols but in different labs
- Misleading the figures with colored inputs e.g. Adobe Photoshop
- Giving false inputs to research advisory committee
- Modifying the protocols for expected generation of result
- Publishing others work without their consent
- Using the technical details confronted by others without their consent
- Working carelessly with intention
- Harming others work by spoiling the research materials (like reagents, DNA preparations etc.)

2. Research Goals

- Should be directional and authentic
- Clarity in attaining the objectives and to their respective protocols is necessity
- Inclusion of detailed discussion with core research members
- Time constraining factor is a crucial component like likely completion of a research trial
- The usage of repetitive components is allowed but to the extent that it will not harm the scrutiny of results for different samples
- The management of data should be well versed with sound knowledge of handling techniques and software

3. Command Centre of Research

- Sound economic background is crucially considered herein
- Research enquiries without carrying unconfirmed details are core of foundation
- The time assessment factor is laid deep within human nature which creates haste sometimes
- The self-availability of core members determines the interest of research personnel

- Honest needs of research criteria are to be met regularly by concerned authority
- Progressive details of any experiment should be given in advance
- Precautionary measures of any experimented should be formulated in detail and essentialities of laboratory safety are ensured to be provided

4. Research Path

- Carried by research personnel in his/her instinct from childhood development
- Hypothesis to be laid should be well versed with sound technological and academic information
- Solely should be goal oriented
- Need to be discussed with subject's expertise
- Converging and diverging modules should be well implemented
- Fundamentals of understanding the research path exist by virtue of knowledge potential carried in concerned subject
- The involvement of economic and time inputs should be considered widely
- Unavailable scales of materials are needed to be formally understood
- The existence of multiple publications in similar field of research is avoided, if so not, should be understood deep enough to categorize the existing lags
- The discussion of research paths should be limited to core and entrusted members of field

5. Results & Society

The ultimate aim of any research that is being carried out in different laboratories of different countries is to beneficiate the humans in a 0direct or, in an indirect way. So to carry the load of improvising the componential backgrounds of education, the work should be in common interest of people.

- In diet related experiments false positives should be well noticed
- Pathological tests are to be repetitive enough to generate non-significant change
- Screening tests should be replicated enough to give less false positives
- Technological inputs should be well briefed out as they carry potential risk of manipulating the data

- Mobilization of research components should be safe enough to avoid any kind of accident

Table1: Research Bodies in India

S. No.	Research Body	Numbers
1.	CSIR (Council of Scientific & Industrial Research)	37 National laboratories, 39 Outreach centers
2.	DBT (Department of Biotechnology)	15 National Institutes
3.	ICAR (Indian Council of Agricultural Research)	63 SAUs (State Agricultural Universities), 3 Central & 4 deemed Universities
4.	Others <ul style="list-style-type: none"> • Total Universities • Total Colleges • Standalone Institutions 	1,113 43,796 11,296

Conclusion

Honesty undermined with effort and service to the field of science is much more crucial in this ever expanding field of research practices. The structural limitations are governed by lack in research ethics, un-implemented goals, and loose force of command centre in holding the research personnel. So the research path should be clearly defined and working towards betterment of society where we all live in.