Research Methodology: Lecture 2

Palash Sarkar

Applied Statistics Unit
Indian Statistical Institute, Kolkata
India
palash@isical.ac.in



Motivation and De-Motivation for Research



Motivation

The broad division consists of two aspects: internal and external. External motivating factors would include the following factors.

- Easiest or the only way to earn a living.
- Publishing one (and more and more) papers is important for progressing in an academic career.
- Obtaining patents is a good way to become rich and famous.
- Peer prestige: my friends are all doing research and so should I, or, a person that I dislike is doing well and I want to do better.
- Looking up to someone or trying to be like someone.



Motivation (contd.)

Internal motivating factors would include the following factors.

- Inner beauty of the subject.
- Challenge of the subject.
- Intellectual pleasure/bliss.
- Spiritual/religious state of mind.
- Inherent human spirit of adventure and curiosity.



Motivation (contd.)

The following factors would be a mix of external and internal aspects of psychology.

- Competitive spirit. Wanting to do better than what has been achieved in the world.
- Improve the state-of-the-art in technology.
- Contribute to the improvement of society.
- Fulfillment of the historical legacy in the immediate socio-cultural context.



Motivation (contd.)

Other issues regarding motivation would include the following.

- Motivation is relative to current state.
- General motivation versus motivation for a particular work.
  - Classification of works into *interesting*, *important* and *useful*. *Difficult, non-trivial*, *elegant*, ...
- Some motivations have fulfillment goals through short-term gratifications.
- Some are repetitive in nature.
- Burn-out effect through fulfillment of motivations.
- Evaluating motivations on a futuristic time-scale.
  - Ultimate: the Sun will engulf the World.
  - Current: think only about the next paper.



De-Motivation

Again there are external and internal factors for this. The external factors would include the following.

- Surroundings is non-appreciative.
- Inadequate infrastructure to carry out the work.
  - Non-availability of books, journals and sophisticated laboratories.
- Peer-pressure.



De-Motivation (contd.)

Among the factors for internal de-motivation would be the following.

- Gap between expectations and effort.
- Non-fulfillment of short-term objectives.
- Getting stuck on a specific problem and being intellectually drained out.
- Lowering of self-esteem.



Preparedness of the Mind

- Motivation and de-motivation refer to psychology.
- The issues of motivation and de-motivation are inter-related.
- The state of the mind at any point of time is usually a complex mixture of the above factors.
- May combine different kinds of both motivation and de-motivation.
- Successful phases of research would indicate a surge in the positive elements.
- Understanding the different issues is helpful in providing self-guidance.



Background for Research



Building a Background

- Understanding versus information acquisition.
- General preparation versus preparing for a particular work.
- Passive learning versus active learning.
- Classroom learning versus learning on one's own.
- How is preparatory reading for research different from preparatory reading for an examination?
- How to read a text book? How many problems in the exercises should one solve?
  - Different levels of depth in a book.
  - Reading different viewpoints of the same topic is helpful.



Building a Background (contd.)

- How to read a paper? How to read a group of papers?
- Learning curve.
- Ability to look at the broad issues.
- Use of judgemental approach while reading.
  - Boldness in making judgements.
  - Flexibility to discard previous erroneous judgements.
- Form strong opinions and beliefs and at the same time be open to constructive criticisms. Apparently a self-contradiction; requires striking a right balance.



Building a Background (contd.)

- Acquire the ability to connect different areas.
- Usefulness of library work whether online or offline.
- The purpose is to prepare the mind for active work as opposed to becoming a repository or an encyclopedia.
- Research is done by people.
  - Keep track of the active people.
  - Understand the socio-cultural context. This shapes the questions that one asks.
- Continued learning: combining learning with the other phases of research.

