

Research Methodology

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Roles and responsibilities of students

- Planning and discussing with the supervisor about the research topic and time-table for the research.
- Discussing with the supervisor the type of guidance and feedback that are most helpful, and agreeing a schedule of meetings.
- Taking the initiative in raising problems or difficulties, no matter how elementary they may seem.
- Taking the initiative in arranging meetings.
- Maintaining the progress of the work, in particular, in the form of a presentation of written materials for initial feedback and discussion before proceeding to the next stage.

Roles and responsibilities of students Contd.

- Taking care about necessary safety precautions.
- Drafting and circulating the agenda and supporting documents in advance of meetings, and drafting and circulating the minutes of meetings.
- Keeping systematic records of work completed, and providing written progress reports.
- Submitting all documents including the final version of the thesis to the supervisors for feedback before submission.
- Be aware of the fact that your supervisor(s) gets considerable time to evaluate the thesis.

Keeping in Touch with the Supervisor.....

Do you call
this garbage a
“Report”?

I could not find a
better name,
honestly.



How to keep touch with your supervisor

- It is desirable that the student maintain regular contact with the supervisor.
- Personal meeting is usually the most preferred form of interaction
- Other forms of possible interactions are:
 - Email (often encouraged)
 - Telephony (official line, land line, Mobile, if the guide allows)
 - sms
 - WhatsApp
 - Google Meet, Zoom call, WebEx etc.

Interaction by personal meeting

- Depending on several things, a student may expect at least 8 personal meetings in a year
- Generally, for about 45 minutes
- There could be short informal meetings also, in between
- Quickly arranged meetings to sort out specific issues
- Pop-up meeting
- Even during coffee break, evening walk

Arranging meeting with supervisor(s)

- Formal meeting generally requires prior appointment.
 - helps both parties.
 - Undivided attention for longer period
 - Time of the supervisor is generally structured (Lectures, departmental meetings) and a suitable slot must be found.
- Arranging appointment:
 - Fixed schedule (often requires confirmation)
 - Agreed during the previous meeting
 - Through email, WhatsApp, sms
 - By phone (follow up after email)
 - Through the secretary/PA
- Special care is needed to arrange joint meetings with more than one supervisors.

Few points to be remembered before arranging a meeting

- Before arranging the meeting, make sure that there is something worth discussing.
 - Some progress, some interesting result
 - Some detected anomalies
- If you are presenting some results make sure that these are thoroughly checked by you.
- Do not expect the supervisor to correct your manuscript during meeting.
- Instead, you may discuss about
 - The structure and outline of your paper
 - Important sections like conclusion and introduction

In the meeting

- The aspirant should keep a record of formal meetings and review the same in the next
 - 1 Take running notes.
 - 2 If more than one students are involved, each should take note
- The record may contain:
 - 1 The routine things like date, time, location, participants
 - 2 Review of objectives as agreed and documented in the previous meeting
 - 3 New results
 - 4 Suggestions/Advices by the supervisor
 - 5 Decisions made about future work plan
 - 6 Date, time and location of the next meeting if agreed

Interaction through emails

- Compared to personal meetings, email contact is the next preferred mode of interaction.
- Advances:
 - 1 No appointment or time synchrony required.
 - 2 May continue even when the two parties are at different geographic location.
 - 3 The sequence of emails forms a running record with date and no separate minutes needed.
 - 4 Student gets time to write and revise.
 - 5 More than one supervisors can be informed simultaneously.
 - 6 Automatic preservation of the documents

Interaction through emails contd.

- Advantages

- ① Improves writing skill of student.
- ② Helps shy students.
- ③ Attachments may be sent

- Limitations:

- ① Cannot replace personal meeting.
- ② Body language cues are absent.
- ③ Student has to take care of grammar and (sometimes) spelling.
- ④ Possibility of wrong interpretation due to poor language constructs
- ⑤ Dependence on internet connection
- ⑥ Need to wait for mutual responses

Guidelines for web interaction

- Nowadays, this is one of the essential part of your research life cycle
- Guidelines for such virtual interactions;
 - 1 All “attachments” should be described clearly in the body of the mail
 - 2 Different revised versions of attachments should have different names so that these are not overwritten
 - 3 Do not give extensive homework to the supervisor by email, unless the supervisor specifically asked for it
 - 4 For example, source code of your manuscript

Seeking feedback from a supervisor

- In majority of cases a supervisor would offer his feedback during a meeting or in response to an email.
- The quality of such feedback may vary widely.
 - too general or qualitative: Like: “good work”, “carry on”, “you have to put more effort” etc.
 - Qualitative: “The result does not seem to be correct”, “Why don’t you try a few other cases?”, “We can publish this if you can provide a theoretical proof using measure theory,” “You should investigate why your solution is converging very slowly.”
- Progress of PhD research is crucially dependent on supervisory feedback.
- An aspirant should proactively seek specific feedback from the supervisor.

Seeking feedback from a supervisor

- If feedback and suggestions do not flow spontaneously, the aspirant should analyse possible reasons.
- Possible reasons for inadequate feedback:
 - ❶ The supervisor is withholding comments till the student specifically asks for it (British politeness).
 - ❷ The supervisor is temporarily overloaded and distracted.
 - ❸ He may need time to provide a more specific comment.
 - ❹ Statement, report or request from the student is so ill-formed or contains only subjective opinion that a feedback is not possible: e.g. “I could not find any previous work on this topic”, “I do not think the author understood what he was doing” etc.

Some suggestions to elicit specific feedback

- Present your findings in tables and graph, highlighting the significant part.
- Append your statement with a question: “this is what I got. Do you think it is plausible?”, “how to find out if this result is ok?”
- Request elaboration: “could you be a bit more specific please?”
- Allow more time, wait for his response during the meeting.
- Leave the results so that supervisor gets more time to think about it.

Supervision by team

- What is team supervision?
- Often a research student would have more than one supervisors.
- This we call team supervision.
- Some universities may appoint a supervisory or advisory team along side the guide.
- It is expected that team supervision may provide extra protection to a student

- Special problems with team supervision
- Possibility of inadequate coordination between supervisors leading to
 - ① confusion in a student
 - ② inconsistency monitoring of progress
 - ③ misunderstanding
 - ④ Difficulty in arranging meetings.
 - ⑤ Maintaining balance so that one guide does not feel neglected
 - ⑥ Increased delay in publication as the draft must be approved by both

Supervision style

- The styles and standards of supervisions tend to vary with institutions and individual supervision
- There are frightening number of poor supervisions but we would ignore the horror stories and concentrate on the acceptable ones :-)
- There are several possible styles of acceptable supervision, which includes.
 - 1 Laissez-Faire Style
 - 2 Algorithmic Style
 - 3 Spoon-Feed Style
 - 4 Hybrid Style

Laissez-Faire Style

- In the laissez-faire guidance style the guide provides little or no day to day direction
- Generally a broad description of the problem is all that is told at the beginning
- The student is given ample freedom to explore and come up with solutions
- An effective style
 - for creative, diligent and highly motivated students
 - For average student this style is not so suitable
 - In the early part of a Ph D project it makes the student insecure

Algorithmic Style

- The guide enforces that the student follow a life cycle prescribed by the guide as a strict regimen
- Usually cascade or short spiral life cycle model
- Deviations from the model is strongly discouraged
- Pros:
 - Easier tracking of progress
- Cons
 - May discourage creative individuals who may lose their interest
- In this style, the guide will prescribe the life cycle for a problem
- Students do only what is expected from them

Spoon-Feed Style

- Here the supervisor allocates a series of small assignments, usually sequentially, to the students
- Chalk out the path and/or revise the next agenda based on the results of previous assignments
- Supervisor takes responsibility of generating publications, by fitting the jig-saw puzzle, usually combining the work of two or more persons
- Cons:
 - The student miss the adventure, thrill of mysterious Ph.D journey
 - May discourage and de-motivate creative and advanced students
 - Sometimes the student suffers from lack of subject knowledge

Hybrid Style

- In the hybrid style of Guidance, elements of other styles are employed
- Fairly common
- Usually the best when performed properly
- Must be deliberate and well thought out
- Cons:
 - Some students get confused when a new paradigm is encountered
 - Some students may think that the supervisor is confused or incompetent, as some paradigms may be contradictory

Some points to be remembered

- Supervisors can change institutions, leaving you with some difficult decisions to make
- Dissatisfaction with the supervisory arrangements
- Can often be sorted out amicably and informally.
- May lead to a plea to change the supervisor
 - get to know the rules and procedures of university.
 - It may take a few months before a change of supervision would be possible.
 - The procedure would be painless if the current supervisor appreciates your difficulties and agree to the change.
- Where more serious issues of unprofessional conduct occur then the University complaints procedure is the best option
- When finding a new supervisor do not repeat previous mistakes