

Svetosimunska street 25, 10000 Zagreb, Croatia Contact: <u>harissa@agr.hr</u> www.agr.hr



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Supporting Doctorands' Professional Development Including Scholarship **Applications**

prof. Ines Drenjančević, MD, PhD Faculty of Medicine Osijek, University J. J. Strossmayer Osijek, Croatia



























Harmonization and Innovation in PhD Study Programs for Plant Health in Sustainable Agriculture -HarISA is a Erasmus+ project funded with the suport of the European Union. Project Number: 598444-EPP-1-2018-1-HR-EPPKA2-CBHE-JP (2018-2472 / 001-001)

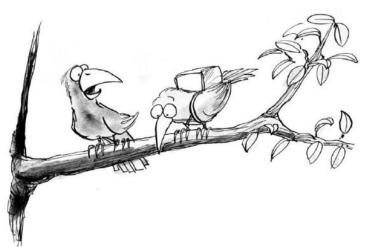
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Outline

- Mentoring in general, effective relationship with student
- Effective communication to introduce your students to writing, presenting and publishing their work.
- Choosing professional path: effective support for student to apply for scholarship grant
- How to write a fair letter of recommendation

Tasks (expectations, outcomes) of doctoral students

- It is essential for a doctoral student to learn to conduct research scientifically,
- to write and publish his/her results,
- To network with other researchers and relevant interest bodies,
- and to learn how to apply for funding.
- The supervisor has a vital role in supporting this learning process.



"Let's try it without the parachute."

Mentoring

- A collaborative learning relationship between individuals who share mutual responsibility and accountability for helping the mentee work toward the fulfillment of clear and mutually defined learning goals – and to achieve professional excellence;
- Shared scholarly interests as identified by both the mentee and mentor;
- Attention to building trust as central to an effective mentoring relationship;
- The relationship focus on the students' progress through the program's *Academic Milestones*, and the Dissertation;

Source- School of Social Work, University of Washington, Seattle, WA, USA

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Mentor:



- Helps updating the *Individual Development Plan* (IDP) to reflect changing needs and
 goals;
- Assists mentee at specific stages of professional development and career transition;
- Helps the mentee establish a research community within and outside the grad school.

Ways in which mentors provide guidance

ent	ed toward Programmatic Success	Oriented toward scholarly development
•	Choosing appropriate courses outside the School, based on program requirements	Facilitating networ their substantive ar mentees to key sch professional meeting
•	Supervising or assisting to set up independent studies, if appropriate	Turning students's publications – devisubmitting manuscreviewers, etc.
•	Formulating a QP topic, outline, timeline and communicating with the committee members	Working with men structure for timely QP.
•	Developing a dissertation topic, proposal, and timeline and communicating with the committee members.	Preparing presenta for professional me
•	Working on IDP and e-portfolios	Practicing research professional planni
•	Reviewing Academic Program Milestones on a quarterly basis	Role modeling in p situations

Informing your mentee of appropriate TA and RA opportunities (in addition	 Discussing job options, preparing for the job market and negotiating an
to those identified by the Doctoral Program Director and Deans Office)	offer
Applying for grant and fellowship funding, as appropriate	 Ensuring that mentees aware of major trends and issues in the field, such as the Grand Challenges for Social Work
 Finding other mentors to help with topics that are not your strengths as primary mentor 	 Developing protocols for the IRB for mentee's research, as needed.
 Offering advice on teaching opportunities and strategies for improving teaching, where appropriate 	 Helping students develop attainable career goals and a plan for reaching them
 Strategizing on building an effective mentoring team 	Conducting peer review of research
 Demystifying the graduate school and faculty experience 	 Nominating your mentee for awards and fellowships (local and national) if they meet the criteria
 Socializing students to doctoral program productivity expectations 	 Socializing students to productivity expectations of academia
Supporting students' questioning, curiosity and innovative creative work	 Fostering transdisciplinary opportunities
Ensuring timeline completion of the program and advising mentees regarding career opportunities	Writing reference letters
•	Brainstorming ideas for time management and maintaining work/life balance

Example: Academic milestones -PhD student's walk of fame



YEAR	PROGRAM MILESTONE	RECOMMENDED TIMELINE	FINAL DEADLINE***
Year 1	Individual Development Plan (IDP)**	Spring Year 1: Draft in consultation with advisor	Presented to doctoral faculty end of fall term Year 2 as bridging between Years 1 & 2
	First Year Comprehensive Exam	Summer before Year 2	Before end of fall term Year 2 (if rewrites are needed)
Year 2	Formation of Supervisory Committee	Select chair fall term Form full ctm by fall/winter term	End of summer term
	Development of General Examination Proposal	Fall/winter	End of summer term
Year 3	General Examination (Qualifying Paper & Oral): Advance to Candidacy (PhC)	Fall/winter	End of spring term
	Development of Dissertation Prospectus	Winter/spring	End of summer term
Year 4 & Beyond	Dissertation Prospectus Approved	Beginning of Year 4	End of Year 4
	Dissertation Completion and Defense	Year 4 - 5	End of Year 6

^{*}Recommended and Final Deadlines to be implemented beginning 2017-18 academic year

**IDPs will be implemented for Cohorts 1 and 2, beginning fall 2017 and until completion of the dissertation; cohorts 3 and beyond may
continue to complete the advising checklist or the IDP.

*** Failure to meet the Final Deadline will result first in an Academic Warning with clear deadlines, which must be met to avoid Academic

Example: Rhythm of studies and student's obligations to advance in PhD programm - Faculty of Medicine Osijek

- (4) Ritam studiranja i obaveze studenata doktorskog studija koji studiraju u punom radnom vremenu:
 - I. godina: Izrađen i odobren Individualni studijski plan za tu godinu. Odslušano i položeno predmeta i praktikuma u vrijednosti od najmanje 12 ECTS bodova i izborne znanstvene aktivnosti te izvannastavne aktivnosti, u pravilu 15 ECTS bodova. Student je obvezan tijekom I. godine doktorskog studija imenovati mentora i komentora.
 - II. godina: Izraden i odobren Individualni studijski plan za tu godinu. Odslušano i položeno predmeta i praktikuma u vrijednosti od najmanje 12 ECTS bodova i izborne znanstvene aktivnosti te izvannastavne aktivnosti, u pravilu 15 ECTS bodova. Stjecanje 5 ECTS bodova iz pozitivno ocijenjene prezentacije godišnjeg seminarskog rada na Danima doktoranada od strane Povjerenstva za stjecanje doktorata znanosti i 10 ECTS bodova iz javne obrane teme doktorske disertacije.
 - III. godina: Izrađen i odobren Individualni studijski plan za tu godinu. Odslušano i položeno predmeta i praktikuma u vrijednosti od najmanje 11 ECTS bodova i izborne znanstvene aktivnosti te izvannastavne aktivnosti u pravilu 15 ECTS bodova. Pozitivno ocijenjen godišnji seminarski rad vezan uz potencijalnu temu istraživanja, odnosno njegova prezentacija i stjecanje 5 ECTS bodova na temelju toga tijekom Dana doktoranada.
- (5) Ritam studiranja i obaveze studenta Doktorskog studija koji studiraju u dijelu radnog vremena:
 - Preporučljivo je da se u pogledu organizirane nastave te izbornih znanstvenih i izvannastavnih aktivnosti ponašaju kao studenti koji studiraju u punom radnom



Effective communication

• Some people are born communicators; others have to learn!







Earth needs a virtual country: Rationalia, with a one-line Constitution: All policy shall be based on the weight of evidence





Structured communication is a key

Face-to-face communication is a key to build trust, the foundation of a strong working relationship. During your face-to-face meetings, you're sending and receiving a complex set of verbal and nonverbal cues.

Adopted from https://www.sciencemag.org/careers/2008/06/mastering-your-phd-better-communication-your-supervisor

How to effectively communicate with a student



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Getting Started with a Mentoring/Mentee Relationship

- Have an introductory meeting
- To sustain a positive mentoring relationship →

determine a mutual responsibility of mentee and mentor



- Optional: Developing a written agreement between you and your mentor
 - Goals: What do you hope to achieve as a result of this relationship?
 - Expectations and Responsibilities: What general expectations do the mentors have of the mentee? What general expectations does the mentee have of the mentors?
 - Frequency of mentoring meeting: How often will you meet?
 - Location and length of mentoring meeting: Where will you meet and for how long?
 - *Clarify:* Who will be responsible for scheduling the meetings, setting the meeting agendas and agreeing on general topics for discussion at meetings?
 - Agree on expectations for timeliness of feedback on written documents: (A realistic expectation is within 1 to 2 weeks)

- Set ground rules for how to meet expectations: what do you expect your mentee to do independently versus when to work closely with you? Be clear about your expectations in terms of your mentee's professionalism, self-motivation and engagement. Be equally clear and consistent in meeting mentor expectations.
- · Make explicit working styles of both of you
- Communicating across differences: Discuss how to communicate effectively across varied backgrounds: race/ethnicity, sexual orientation, gender identity, disability, social class and positions of power.
- *Feedback:* Clarify how you view the giving of feedback and ways to try to handle disagreements.
- Make explicit institutional and discipline-specific norms, standards and expectations, including those related to intellectual property.
- *Clarify expectations/policies* for manuscript authorship, conference presentations, accessing data, and related scholarly issues.
- https://socialwork.uw.edu/writing-publication-guideposts

One of the greatest needs expressed by **doctoral students** is for <u>clarity on expectations</u>, <u>roles and responsibilities</u>

- Make a time for regular appointments to talk face-to-face whenever you have something important to discuss, at least once a month
- Student should be prepared for a meeting.
 - Students should come to the meeting with a written list of questions and concerns. Keep them brief--no more than three issues per meeting
- During the meeting, make your student take notes and jot down your (supervisor's) suggestions,
- At the end of the meeting, student should immediately send a follow up email that summarizes what you discussed –good to check if he/she understood your points.
- TIP →a montly progress report ask student to send an e-mail at the end of every month, with a brief summary of the experiments he/she has done and results achieved

Exercise: discussion on the Form of written agreement: 10-15 min



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How to effectively communicate research in writing



Conducting research (experiments, field research etc)

- When considering the realization of any practical elements of doctoral research, note that student does not necessarily have to do everything by oneself.
 - One can potentially utilize data that has been originally collected for another purpose, combine and analyze data from different sources, or even material collected by students for their assignments.
 - However, one should not forget to acknowledge the work by others.



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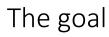
Tips for writing – general recommendations

- The key for effective completion of articles and doctoral dissertations is documenting and writing.
- Make your student start immediately!
 - For example, one can start by putting ideas into PowerPoint, followed by a Word document with a working topic. You can start structuring the text by using a bulleted list atc.
- Being systematic-If your research contains measurements, maintaining good records and writing down any deviations and observations are important for the optimal utilization of this material
- A group has power. Use it!
- Effective review practices are a good way to advance your writing process.
 Write in small increment and ask others (colleagues, supervisor/s, etc.) for
 feedback when you feel that a logically coherent subsection of the
 document is ready.

https://www.oulu.fi/sites/default/files/content/files/practical_tips_for_doctoral_students.pdf

How to effectively communicate research to scientific community

- Publishing in Journals:
- Conferences:
- Using social networks:









Tips for writing an article

- A researcher easily has an illusion that his/her research will sell itself more or less automatically.
- the key point is to express your main message as clearly as possible
- start learning to write piece-by-piece
- For student: As a rule of thumb, it is beneficial mandatory to include your supervisor as a co-author. This way you respect the help you receive and maintain the relationship

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Mentor's tasks in writing an article

- Mentor is a senior (main, corresponding) author of the manuscript:
- She/he examines collected data and analyses what is going to be published in the manuscript
- Assigns tasks to co-authors- resolve potential dispute on the order, contribution etc.
- Helps choose a journal to publish
- Supervises writing process give feedback to first author and others
 - Check "small things" (scales on graphs, presence of elements, clarity of writing, logical order)
- Writes!
- Approves final version
- · Writes Cover letter
- Helps (writes) replies to reviewers
- Keeps student enthusiastic



PhD student's tasks in writing an article

- Do the experiments
- Provide all necessary graphs, figures, tables
- Review literature
- Write first draft (with a help of other co-authors)
- Causes of delay: too much work to do (practical, teaching etc), lack of focus, lack of reading literature, empty paper fear..

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Recommended order of writing

- · Initial outlining of introduction (research questions)
- Initial outlining of theory
- · Writing experimental elements
 - results
 - analyses
- Research process
- Finalising theory
- Introduction
- Conclusions
- Abstract

Finalising

In practice, an article constitutes of the following elements:

- Title
- Abstract
- Introduction
- Theory/Literature review
- Research method/process
- Results (is sometimes divided into results & analysis)
- Conclusions

Finding suitable Journal to publish in

- After initial ideas and outlining, try to find a suitable target Journal
 - Aim to analyze about five recent articles in the target Journal, paying special attention to topics, structure, utilized research methods etc.
 - For a European author, it may be beneficial if some of the authors and editorial board members are European
 - Outline the initial theory for your article. After this, concentrate on the core of the article and write the results and analysis of your research.
 - Real life experience approach of finding journal:
 - Journals where your mentor has previously published may be your target journals;
 - Search dana base of interest by key words of your article (e.g. PubMed, WoS; SCOPUS, SCIMago)
 - · Scimago-very helpful to check for publication fees, Q rank
 - WoS to check Q, IF...

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Article writing - Title

- do familiarize yourself with the types of titles in the target Journal, analyze whether they are more general or very specific.
- a too long title is not good, app 8 words is good
- Examples (fun maybe ☺):
 - Leukocyte Activation and Antioxidative Defense Are Interrelated and Moderately Modified by n-3 Polyunsaturated Fatty Acid-Enriched Eggs Consumption-Double-Blind Controlled Randomized Clinical Study (23 words - 2020)
 - Sex-related differences in forearm skin microvascular reactivity of young healthy subjects (11 words 2018)
 - Assessment of coronary hemodynamics and vascular function (7 2014)
 - 20-hydroxyeicosatetraenoic acid, endothelial dysfunction and hypertension (6 -2011)

IF

Abstract

- What is the bigger, more general whole your article relates to?
- What is the purpose of your article?
- What methodology have you used?
- What are the key results?
- What are the practical implications of your research (how can the results be utilized by e.g. practitioners or companies)?
- Structured vs. Unstructured abstract, word limitation (200-250-300 makes BIG difference)
- Many times is the only thing that is read from the manuscript. The better abstract the higher chance a paper is going to be referenced at.

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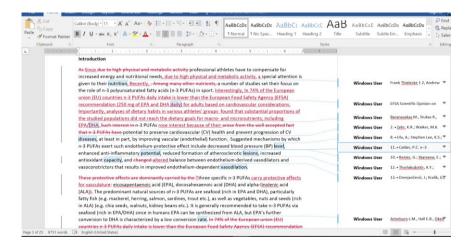
Introduction of manuscript

- Write the introduction to form a logical funnel, where more general aspects are told first and sentence-by-sentence, paragraph-byparagraph proceeding into more detailed.
- The aim of the study is told last in the introduction by describing th research problem.
- Do NOT include results in Introduction (note: this is not general practice, since some journals even ask for one sentence of results)
- Use research question to introduce the subject of research and make your paper interesting
- Write the theory to support the storyline or your article
- refer to some gurus in your field to show that you know the scientific research in your field. Additionally, it is important to refer to new Journal articles to ensure the timeliness or your article.



Details

Third review of manuscript draft by a mentor



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Research Methods

- research method/ process should be described so that another researcher can repeat the study
- provide details (particularly if presenting method for the first time), or proper past literature reference with exact protocol or methodology

Results and Discussion

- The experimental part of a Journal article must concentrate on the actual analysis of the material, not on documenting the data.
- Consider what the core results of your research are and bring them forward clearly. Also, do highlight the core results by using visual elements (anything that differs from basic text, e.g. lists, illustrations, and tables)
- In some journals that is written together; mainly it is written separately.

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Conclusion

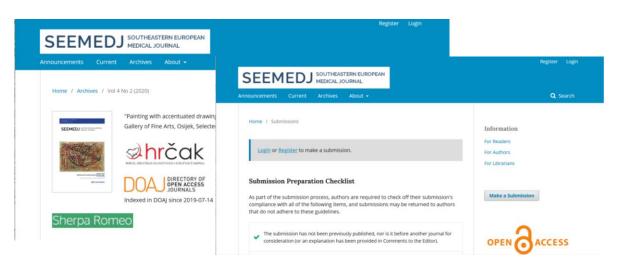
- Sometimes is separate chapter, mostly part of the Discussion section.
- enable understanding the core content without reading the entire article.
- It is important to include the practical implications of your research in the conclusions chapter, i.e. what are the implications for practitioners, companies etc.

What else, except the content of the paper?

- · Cover letter,
- Acknowledgements, funding
- seniority of authors, the order of authors, author's contribution→ DONE?→
- TIP→ First check everything written and prepared by your student AND approve the last version
- And NOW→ submit the paper, online submission systems...
- KEEP the submitted version
- TIP -> start with highest journal IF /Q in your field, and expect to be declined but with decent reviews

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http://seemedj.mefos.unios.hr



Cover letter



Key points to include:

- Editor's name (you can usually find this on the journal page on Taylor & Francis Online)
- · Your manuscript's title
- Name of the journal you are submitting to
- Statement that your paper has not been previously published and is not currently under consideration by another journal
- Brief description of the research you are reporting in your paper, why it is important, and why you think the readers of the journal would be interested in it
- · Contact information for you and any co-authors
- Confirmation that you have no competing interests to disclose

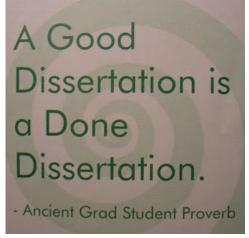
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After submission - Reacting to reviewers' comments - writing revisions

- The feedback may initially seem harsh, however, do not get depressed
- The purpose of the point-to-point response is to avoid the reviewers being forced to read the entire article again when checking your changes
- · Good luck with publishing!
- https://authorservices.taylorandfrancis.com/publishing-yourresearch/







Communicating research to scientific community - conferences

- Choosing a conference
 - Students' pre-conference meetings of national and international professional societies
 - Annual conferences organized by schools (The Doctorands' Day)...
- Presenting results as poster or oral communication?



How to effectively communicate research to general audience?

- think about which aspects of research could be relevant to our diverse conversation partners; the chances that we will trigger their interest significantly increase. Tip 1: Consider your audience
- Save the elaborate language for academic papers and specialist conferences, and <u>choose clarity of expression</u> to keep your conversation partner engaged and enthusiastic. → Tip 2: Simplify your language
- Present papers at conferences. Conferences are also fantastic places to make new friendships – both professional and personal ones.
 Many of them result in publications, essential to getting your research across to different audiences. Tip 3: Present your work

https://authorservices.taylorandfrancis.com/communicating-your-research/#

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- Be open to sharing your research not only at conferences or through publications but also on blogs, social media or even YouTube! → Tip 4:
 Share your research in various ways
- it is easy to forget why we are doing this particular research at all.
 Posing ourselves questions about the value of our research can be extremely useful. → Tip 5: Keep being creative



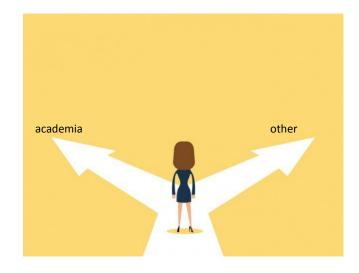




https://authorservices.taylorandfrancis.com/communicating-your-research/#

Professional development after PhD

- Where to go?
- Why to go?
- What to do?
- · What to expect?
- How to do that?

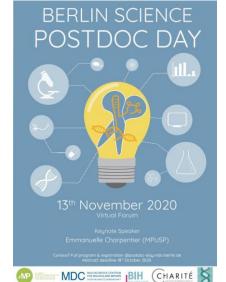


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To be or not to be a postdoc?



http://blogs.nature.com/naturejobs/2018/03/26/the-autopilot-postdoc/



https://twitter.com/postdocday2020

How to help PhD student to apply for a grant



- TIP 3→ travel to conferences- professional societies give travel grants, or discounted fees for young investigator
- TIP 4→ institutional grants for research and travel

Web sites to look for grants:

- https://www.scholars4dev.com/6268/top-10-scholarships-forinternational-students/
- For PhD students:
- https://www.scholars4dev.com/category/level-of-study/phd-scholarships/
- https://www.findaphd.com/phds/?Keywords=fully+funded+phd+for+intern ational+students
- https://euraxess.ec.europa.eu/jobs/funding/school-medicine-phd-scholarship-achieving-sustainable-outcomes-obesity

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Study in Europe

- https://ec.europa.eu/education/study-in-europe/planningstudies/scholarships-costs en
- https://www.scholarshipportal.com/
 - for example: https://www.scholarshipportal.com/scholarship/the-bankly-scholarship (\$1000 for any purpose)
- https://www.scholarshipportal.com/scholarships/croatia >500 scholarship
- https://www.mobilnost.hr/hr/sadrzaj/kutak-za-studente/bilateralniprogram-akademske-mobilnosti/ (ERASMUS+)

Research plan content for grant application

Two flies with one hit \rightarrow preparing grant applications for different foundations also helps to outline ones research plan;



Research plan content for grant applications

- Summary.
- Introduction, describing the subject matter of the dissertation and who benefits
 of this research.
- Description of the state of the research and its future progress.
- Description of the research realisation and possible results.
 - o Research questions, Research methods, etc.
- Description of funding and resources (persons, equipment, partners.).
- Schedule for your research
- Existing publications, relevant to your research (academic CV).

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Tips for writing research plan for PhD 2

- Sketch articles chapter-by-chapter and organize review sessions for a chapter at a time. In review sessions, it is vital to document any feedback so as to facilitate analysis and changes.
 - Commenting only via email is less effective, as the full explanation on the reviewers' comments is missing
- It is beneficial to ask others to comment your research plan, most importantly your supervisor, but also others. Your supervisor can help in assessing whether the research is realistic; from the point of view of resources, equipment, schedule, etc.
- Once you have the first version of your research plan, it is worth starting to apply for research grants. Start doing this during the early stages of your research, because, as with articles, the quality and chance of success improves with experience.

 $https://www.oulu.fi/sites/default/files/content/files/practical_tips_for_doctoral_students.pdf$

How to write a letter of recommendation



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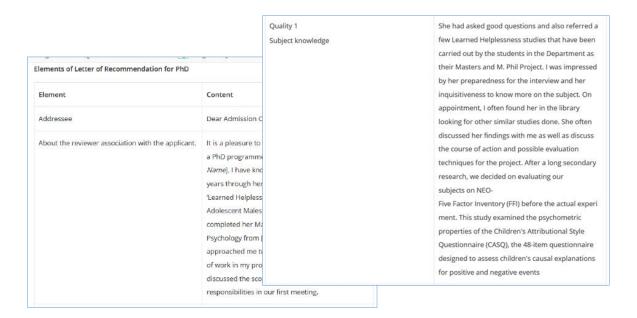
Letter of recommendation (LOR)

- an important part of the admission documents
- LOR is an independent human perspective of the applicant which connects the facts and plans of a resume and statement of purpose
- PhD Letter of Recommendation should mention at least three
 qualities of the applicant a social quality and at least two technical
 or subject related qualities.
- Referees should be academicians with whom you have worked or someone who has supervised or taught you

- The recommender should know student as a person, his/her capabilities as a student, as well as student's control over the subject they have been teaching. They should also be aware of student's future plans.
- Referees should speak of strong subject knowledge as well as analysis traits.
- LOR should show the student as possessing positive qualities like intelligence, self-motivation, responsibility, and amicableness. Emphasis should be given on passion and dedication as well.
- the applicants should also display perseverance, competitiveness and ability to work independently. Courses and knowledge related to PhD program related packages, extra courses, statistical analysis techniques should be exemplified in the LOR.

LOR structure

- A Recommendation Letter for PhD will typically be between one to two pages. The document should be well differentiated into 5–6 paragraphs. The LOR should begin with an introductory paragraph about the recommender and his/her association with the applicant.
- The next 3–4 paragraphs should outline the different academic and social qualities of the applicant with suitable substantiation. No quality should be mentioned without a suitable example.
- Finally, the concluding paragraph would be summing up the above with a line recommending the applicant to the program.

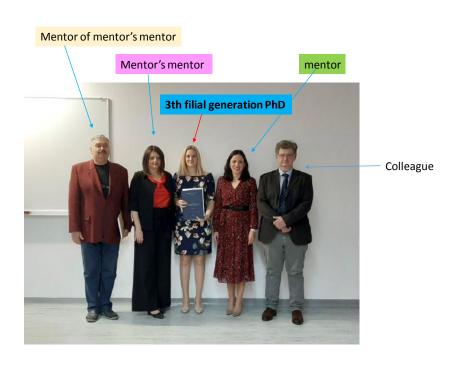


Quality 2. Leadership skill	During that project, Pema demonstrated the ability to work independently with creativity and		
Quality 3. Social and Communication Skill (Quality 4. Team skills	The Project Fellows in the project always had praises for Pema. They always mentioned her patience and perseverance in clarifying their doubts on the standardized data collection and analysis techniques. Pema had doubled her efforts on data collection when she found that one of the project fellows was down with fever and cold. She had not let this effect the Project Schedule.	
Analysis skills	Quality 5. Creativity and patience	Pema is very creative and patient with the kids. The long questionnaire would be too tedious for the kids so she would often make origami for them as they worked on the questionnaire.	
	Quality 6. Achiever	Her hard work and perseverance paid off when her paper, 'Learned helplessness and achievements in pre-adolescent males and females' was selected for publication in an International Journal.	

Strong Recommendation	Ms Tenzin Pema is clearly the best student that I have worked with in the past few years. I strongly recommend her for a PhD programme from [University Name]. She would be an asset to any university she joins.
Referee information	ABC DEF Professor Department of Social Psychology University Name City Email ID: Contact No:



"I wonder if he ever wrote that letter of recommendation."



https://wordvice.com/graduate-schoolrecommendation-letter-templates-and-examples/



