

A Complete Mentoring Roadmap
Booklet 2: A Step-by-step Guide to Setting Up a Mentoring Programme in Academia

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“At its best, mentoring can be a life-altering relationship that inspires mutual growth, learning, and development. Its effects can be remarkable, profound, and enduring; mentoring relationships have the capacity to transform individuals, groups, organizations, and communities.”¹

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Executive Summary

The main goal of this booklet is to outline a mentoring roadmap tailored to the requirements of each target group within academia. The principal target audience of this booklet is mentoring programme coordinators or individuals exploring how to create a mentoring programme. Some fundamental mentoring issues will be broached such as where to look for mentors; how to ensure a good “match” between mentors and mentees; setting goals and outlining expectations; first meetings and topics to cover as the mentoring programme progresses, which are tailored accordingly to each target group. With regard to the target group of mentees, this mentoring roadmap is organised into two main groups: undergraduate and postgraduate students; and faculty following a teaching and research career.

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Understand the different types of mentoring

There are many types of mentoring and it can take the form of, “interactions, largely based on a one-way flow of information, between a mentor and an individual being mentored (i.e., a mentee)”; peer mentoring or group mentoring². Some of these alternative models move toward bidirectional engagement of mentor and mentee, which has been shown to improve mentoring outcomes in many cases³ “with mentors also being enriched and gaining benefits from engaging with the mentee^{4 5 6}”. Montgomery⁷ distinguishes between a top-down mentoring approach that can closely mimic advising and suggests transcending this by,

“Getting to know the personal strengths and weaknesses of an individual – “learning” the person.”⁷

Determine the target groups

In an academic setting, particularly for students at an undergraduate/postgraduate level, group mentoring should be initially considered as it allows multiple needs to be addressed. During group mentoring sessions, with mentees and several mentors, it is best if one or two mentors lead the sessions. These sessions can be organised into various formats, for example, workshops, discussion groups, or forums⁸. “The opportunity for mentees to rely on several mentors could help in an academic world that is increasingly competitive, changing and diverse. Also in this case, a deep knowledge of the local context and needs can help mentoring programme designers understand which types of mentoring are better suited in an institution or how to mix them.”⁹ One-to-one mentoring is also an option with this target group if deemed appropriate either at the early or the later stages.

At the Ph.D./Post-doctoral level, that is for students completing a Ph.D. or post-doctoral studies, a more individualised set up is suggested with considerable emphasis placed on the importance of networking. Concerning faculty following a teaching and/

or research career, such as lecturers and researchers trying to progress within their field of expertise or focus on a new area, one-to-one mentoring that is bi-directional is likely to be the most beneficial to meet specialised needs. As demonstrated in section 2.2, different types of mentoring may be more adequate for specific target groups. Likewise, the nature of the mentoring activities must be adapted for each target group accordingly. To illustrate this point, an undergraduate student would benefit from a mentee reviewing their CV whilst a lecturer on the path to becoming a senior lecturer would find support on how to deal with difficult students more useful. See section 2.6 table B for further examples.

Establish the purpose of the mentoring

It is essential to establish the purpose of the mentoring exchange, namely transitional i.e., support through mentoring, "when moving from one career stage or placement to another" or aspirational, "which often positions individuals to move toward a career or opportunity to which they aspire." Maintenance mentoring, "provides the support needed to maintain one's placement and to complete a particular, and often time-delimited, portion of one's larger career path."²

A mentoring roadmap cheat sheet

Table A outlines different roadmaps that could be applied depending on the purpose and target group of the mentoring programme. Aspects to consider include defining the target group; the duration of the mentoring programme i.e., is it short, mid or long-term; how the programme will be delivered namely, on/off-site, one-to-one, in groups or bidirectional; the purpose of the exchange, decide whether it is aspirational, transitional or maintenance mentoring.

Target group	Students: Undergraduates (UG) Post-graduates (PG)	Students: Ph.D. and Post-doctoral studies	Faculty: Research-oriented i.e., from researcher to senior researcher	Faculty: Teaching-oriented i.e. from lecturer to senior lecturer, lecturer to professor, professor to associate professor
Duration	Short-term	Mid-term	Long-term	Long-term
Delivery mode	On-site, group mentoring, followed by one-to-one sessions (in-person or online)	On-site, one- to-one, peer mentoring	On/off-site, bidirectional	On/off-site, bidirectional
Purpose of the exchange	Aspirational mentoring	Aspirational and Transitional mentoring	Transitional mentoring	Transitional and Maintenance mentoring

Table A - Target groups, duration and delivery mode and purpose of the mentoring exchange.

Steps to take and practical issues to address

Regardless of the purpose and target group, there are some activities and practical issues that are all-encompassing. Steps to take across the board include:

Step one

Organise a group introductory session (2h) (mentor and mentee). See Booklet 3 for further details of group introductory sessions and further details about steps two to four.

Step two

Get to know each other - outline the areas in which guidance is needed (mentee); outline strengths and weaknesses (mentee); outline your current status, some techniques to use in relevant areas (mentor) and some pertinent aspects of yourself and your experience (mentor and mentee); define expectations (mentee)¹⁰.

Step three

Outline practical responsibilities - define the mode of contact (mentee)⁸; frequency of meetings (mentor): set realistic goals in terms of time-commitments and time-management (in particular a mentor's available time);¹¹ respect boundaries⁸; define study/career goals (mentee) for undergraduate and postgraduate students, respectively; it may be that the mentor's "end game" requires assisting the student in successfully launching that career¹².

Step four

Follow-up and continued activity - a record of the meetings should be kept. Written records allow progress and achievement of objectives to be reviewed, as well as provide feedback. Ideally, the mentee will schedule the meetings after they have been agreed upon together and ensure the relationship remains active (mentee)⁸.

For a more detailed list of activities, see section 2.6.

Establish a pool of mentors

Include all groups and consider formal support

Mentoring may already take place informally within an institution. However, it is important to be aware that, “marginalized groups experience significant barriers to developing informal workplace mentoring relationships”¹³ and Boyle and Boice¹⁴ further reaffirm that new faculty members, such as women and minorities, are the most likely to have difficulty finding impromptu support such as mentoring¹⁴. Mentoring can equally support newcomers and marginalised groups within the student population. Therefore, formal support systems help these groups. Consequently, it is relevant to include all groups, particularly marginalised groups, as “Mentorship is a collaborative learning process that draws upon the knowledge of a variety of faculty who can provide guidance (senior faculty, near peers, and peers may all function as mentors)”^{15,16}

Follow up on all leads

If the aim is to establish a more formal mentoring programme and a solid mentoring pool, identifying and contacting known mentors and seeing if they can put you in touch or follow up with their connections is useful. Furthermore, you can carry out a general search or identify connections through events and exchanges such as meetings, seminars, workshops, conferences, career fairs and other places where individuals who have the expertise and knowledge that you are looking for can be found. Alumni networks or industry contacts are also useful sources to expand your potential mentoring pool.

Ensure mentor diversity

When establishing a mentoring network, “networking diversity”, that is to say, mentors from a diverse background and “networking range”⁸, that is, the extent to which mentors, “originate from different contexts or social origins” should be ensured. Adopt a campus-wide approach, send an email from a senior administrative officer of academic matters (or relevant body) for mentors to come forward themselves or respond to a mentoring request¹⁷. This can also help to build diversity. Smaller departments that do not have enough senior faculty to serve as mentors can identify faculty from other departments¹¹. Cross-departmental matching has proven an effective way to ensure confidential information could be discussed with the mentor¹⁷. When matching mentors with mentees pay close attention to aligning interests in similar areas and relevant experience.

Launch the mentoring programme

Organise an introductory session

Participation in the programme’s introductory session for both mentors and mentees will provide them with an overview of the programme and promote interaction and the exchange of ideas. It will also provide an opportunity to look at the mentoring process more closely. You may also want to consider inviting inspiring guests and role models. See Booklet 3 for further details about the introductory session.

Support for mentors

Additionally, mentors should be provided with training via means that they are more likely to utilise given that they often have severe time constraints, namely, “brief podcasts and webinars, websites that offer brief articles and advice, and coaches available upon request are more likely to be used than in-person workshops.”¹¹ A specific training session for mentors may be useful here. Complementary material can be provided upon request for a specific group session for mentors. Equal.STEAM, a project of the University of Coimbra, under which these booklets were created, has developed a number of valuable resources to this end, namely in activities 2, 5, and 9: E-Learning Course, Mentoring Programs and Course Units, respectively.

Frequency of meetings

Concerning the frequency of meetings, “Consistently, over and over the mentees described the most helpful aspect of the relationship as having regularly scheduled, one-on-one, confidential time with the mentor.”¹⁷ According to the Mentoring & Tutoring: Partnership in Learning, 2014, findings from their mentee survey data, in terms of types of and frequency of contact with mentors, the highest occurrence stood at 74% (N= 31 mentees) representing in-person contact, once a month. Other means included more than once a month, more than once a week, via email, phone and spontaneous contact¹⁷. Recurrent contact between the mentor and mentee is essential and ensures fruitful collaboration, “Those pairs that had the most frequent, regular contact rated their relationships as above average or excellent much more frequently.”¹⁷

Format of meetings

With regard to the format of meetings, online mentoring can facilitate finding more suitable mentors. A wider pool of mentors may be particularly pertinent when matching marginalised groups. However, when a solid pool of mentors has been established, on-site mentoring should be given priority considering the importance of establishing local mentors from the home institution as they can provide, “critical input into sharing heuristic knowledge needed for successfully navigating a particular place or work environment”^{18 19 20}.

Respect boundaries

From the beginning, mentoring pairs or peers must agree to respect privacy and understand that all information disclosed during the mentoring sessions will be kept strictly confidential⁹. Topics that are out of bounds and not to be discussed should be made clear from the start. From the viewpoint of a mentee, courteous behaviour such as ensuring you are punctual, reliable and establish an autonomous work style can be conducive to creating an environment in which the mentor can best meet the mentee's needs²¹. Further details about topics to broach, expectations and responsibilities for both the mentor and mentee are outlined in table B.

Select activities and qualities

Students		Faculty	
Undergraduates (UG) Post-graduates (PG)	Ph.D. and Post-doctoral studies	Research-oriented i.e., from researcher to senior researcher	Teaching-oriented i.e. from lecturer to senior lecturer, lecturer to professor, professor to associate professor
At least initially group mentoring is suggested when it comes to this target group, unless an individualised approach is deemed more appropriate	A more individualised approach is suggested when it comes to this target group, unless group work is deemed more appropriate	A more individualised approach is suggested when it comes to this target group, unless group work is deemed more appropriate	A more individualised approach is suggested when it comes to this target group, unless group work is deemed more appropriate
<p>Group mentoring Through workshops, discussion groups, or other forums, several topics can be covered, namely⁶:</p> <p>Strategic career planning, negotiation (skills)</p> <p>Presentation</p> <p>Creation of own profile and networking</p>	<p>Develop research and presentation skills, provide advice on how to work best with one's supervisor</p> <p>Widen reading outside field of research and allow mentees to share in this reading²²</p> <p>Expose to highly renowned academics/researchers in their field; clarify research expectations and differences in this environment in comparison to taking a course; teach students about the research process rather than just the outcome of the research; allow time to develop research skills; encourage students to disseminate their work taking advantage of research publication and presentation opportunities¹⁰</p> <p>Act as a consultant or sounding board (research), socialise them into the culture of their disciplines (professional)¹²</p> <p>Encourage students to accept increasing responsibility and challenges that are more complex</p>	<p>Plan and implement a research agenda; and how to succeed with research; information on how to navigate the university system; advice on professional advancement and visibility; help to plan for an academic career; constructive feedback and collaboration; improve teaching skills¹¹</p> <p>Set targets and develop a realistic sense of expectations; time management/prioritising¹⁷</p> <p>Help with working on research grants, writing and conference presentations; provide scholarship advice and/or collaboration around grant writing¹⁷</p> <p>Foster networking; provide tips on how to reconcile work and personal/family life, wellness and flexibility management⁸</p>	<p>Develop research and presentation skills, provide advice on how to work best with one's supervisor</p> <p>Provide guidance on ways to further teaching effectiveness, scholarship, creative activities, service opportunities, and other professional development¹⁷</p> <p>Advice on how to deal with difficult students; understand the politics of both departmental and university-wide communities¹⁷</p> <p>Address career questions and career moves¹⁷</p> <p>Foster networking; provide tips on how to reconcile work and personal/family life, wellness and flexibility management⁸</p>
<p>One-to-one mentoring Several activities can be carried out in one-to-one mentoring:</p> <p>Examine key papers as a basis for discussion²²</p> <p>Review your mentee's CV; hold a mock interview; draft a career plan; attend an event together; discuss job openings; and arrange a workplace visit</p> <p>Identify a suitable career path²²</p> <p>Secure time from visiting international scientists during which students would present their work, go overseas to conferences and/or visit the laboratories of colleagues in their networks²²</p> <p>Provide positive, constructive feedback and encouragement; allow students to learn through trial and error; create a well-defined project with student interest and ability in mind and one that will allow them to have intellectual ownership; craft the student portion of the research product to lead towards student independence¹⁰</p>			

Table B - Activities and qualities to consider as the mentoring programme progresses according to each target group

See the following links for further mentoring support resources:
[The Science of Effective Mentoring in STEM](#)
[Together Software: Matching mentors and mentees effectively](#)
[What are the qualities of a good mentor for students?](#)
[Mentoring: How to be an effective Mentor](#)

Adopt soft skills and mindful qualities

Soft skills that are all-encompassing and can be applied to group or individual mentoring programmes accordingly are also important for a mentor to adopt. They help to ensure that mentees benefit as much as possible from the mentoring programme. Such mindful qualities include being approachable, encouraging, celebrate and reward success²²; spend time with your students and get to know them as individuals; encourage persistence in the face of setbacks; students should be treated as professionals and be given the same respect and opportunities for development as other colleagues¹⁰ (UG); “Learn” the person²; foster inspiration, encourage and build self-confidence, motivation and self-esteem to pursue (more ambitious) study/career goals⁸ (PG); Socioemotional, personal and interpersonal support¹¹ (Research-oriented career); Encouragement and/or emotional support¹⁷ (Teaching-oriented career).

Testimonials

Below is some feedback from mentees and mentors about their positive mentoring experiences:

New faculty member (mentee), “Moreover, (s)he was great in asking about how I’m doing. This is an important question for new faculty members—one that isn’t asked very often because of the busyness of our lives....” “The mentoring program allows for us to carve out the time needed to talk about important questions like, “How are we doing?” and reflect on and evaluate our experiences as a faculty member.”¹⁷

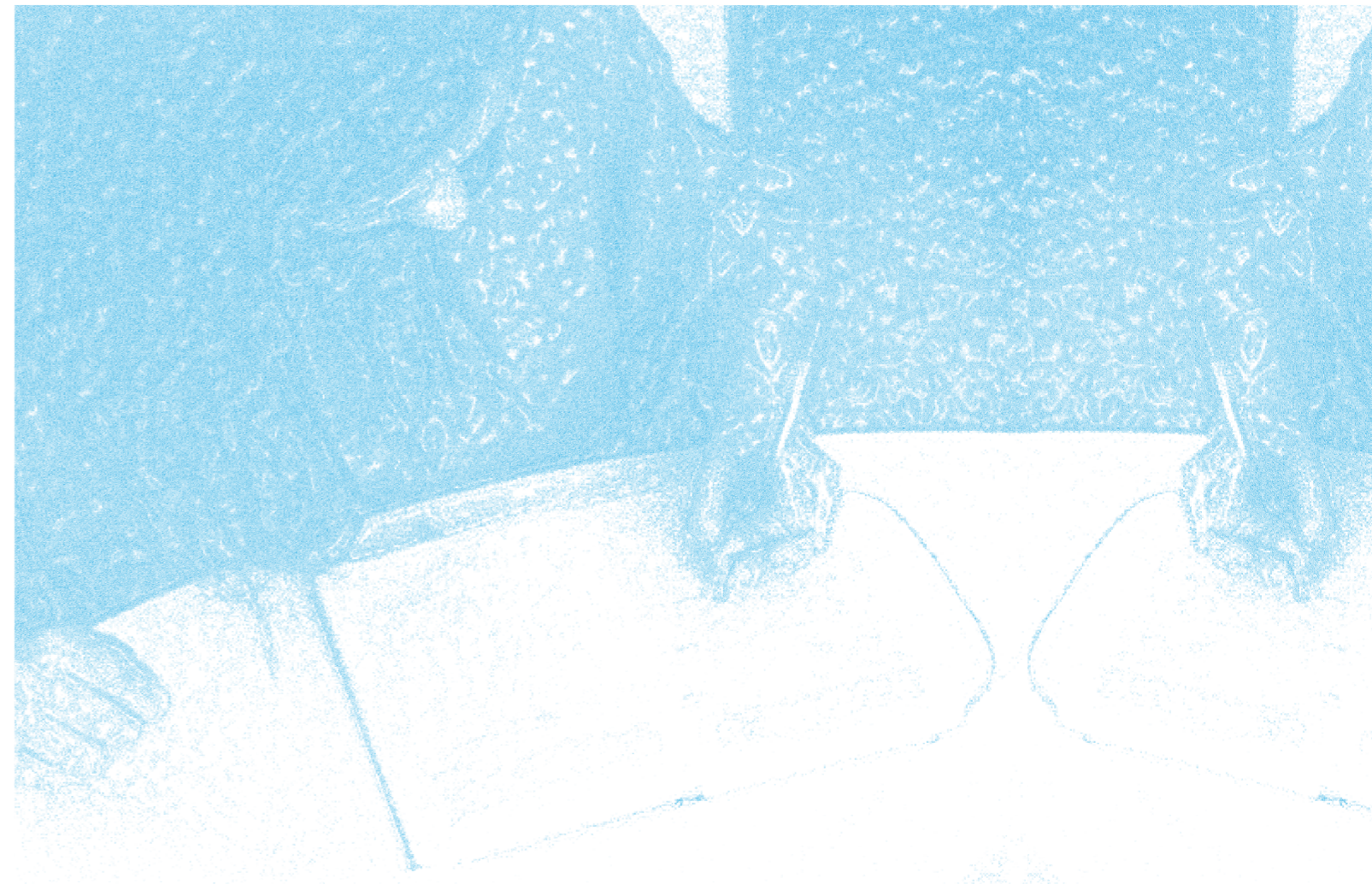
Faculty member (mentee), “(S)he helped me put everything in perspective—tenure and promotion requirements, time commitment to each of the areas of teaching, research, service, etc.”¹⁷

Faculty member (mentor), “linking people from across departments helps us to get to know one another and can possibly lead to stronger work collaboration (i.e., writing together or doing research together).”¹⁷

Faculty member (mentor), “Meeting with a mentee from another discipline allowed the mentee to feel free to ask questions and share opinions with me without fear of being evaluated.”¹⁷

Further information

For further information about launching, implementing and sustaining a mentoring programme, the following booklets, available from the same authors, offer A Complete Mentoring Roadmap – Booklet 1: The Basics of Mentoring in Academia; Booklet 3: Sustaining a Mentoring Programme and Dealing with Invisible Work; and Booklet 4: Leveraging Mentoring to Promote Balance in Academia, Industry, Human Resources and the General Community. These booklets include suggestions and an outline for an introductory session, a list of activities for individual and group mentoring activities, ideas for further activities and a checklist for monitoring progress within the selected target groups. Several resources have been developed in the context of the project Equal.STEAM, please take a moment to review them on the project website www.uc.pt/equal.steam/



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