Mentoring Up for Early Career Investigators

Christine Pfund
Emma Meagher
Adriana Baez
Stephanie House
# Table of Contents

**Foreword**  
3

**Acknowledgements**  
4

**Curriculum Overview**  
5  
- Content, Format, Implementation, and Assessment  
  5  
- Competencies and Learning Objectives  
  8

**Introduction to Facilitation**  
10  
- Role of Facilitators  
  10  
- General Notes on Facilitating a Group  
  11  
- Group Dynamics: Suggestions for How to Handle Challenges  
  12  
- Constructive and Destructive Group Behaviors  
  14

**Introduction to Mentoring Up**  
15  
- Facilitation Guide  
  16  
- Participant Materials  
  18

**Maintaining Effective Communication**  
20  
- Facilitation Guide  
  21  
- Participant Materials  
  24

**Aligning Expectations**  
26  
- Facilitation Guide  
  27  
- Participant Materials  
  31

**Approaching Work-Life Integration**  
39  
- Facilitation Guide  
  40  
- Participant Materials  
  45

**Addressing Equity and Inclusion**  
46  
- Facilitation Guide  
  47  
- Participant Materials  
  50

**Building Research Self-Efficacy**  
51  
- Facilitation Guide  
  52  
- Participant Materials  
  57

**Achieving Independence**  
62  
- Facilitation Guide  
  63  
- Participant Materials  
  65

**Seeking Professional Development**  
67  
- Facilitation Guide  
  68  
- Participant Materials
Curriculum Overview
Competencies and Learning Objectives

**Introductions**

*Learning Objectives for Introductions:*

Scholars will have the knowledge and skills to:

1. Learn about other scholars in the group to begin building a learning community
2. Define mentoring relationships and their role as a mentor/scholar
3. Prepare to establish effective research mentoring relationships with their mentors

**Maintaining Effective Communication**

*Learning Objectives for Communication:*

Scholars will have the knowledge and skills to:

1. Communicate effectively across diverse dimensions including varied backgrounds, disciplines, ethnicities, positions of power, etc.
2. Accept and use constructive feedback
3. Identify different communication styles/approaches
4. Use multiple strategies for improving communication (in person, at a distance, across multiple mentors, and within proper personal boundaries)

**Aligning Expectations**

*Learning Objectives for Expectations:*

Scholars will have the knowledge and skills to:

1. Effectively establish mutually beneficial expectations for the mentoring relationship
2. Clearly communicate expectations for the mentoring relationship
3. Align scholar and mentor expectations
4. Consider how personal and professional differences may impact expectations, including differences across disciplines when working in multidisciplinary teams

**Approaching Work/Life Integration**

*Learning Objectives for Work/Life Integration:*

Scholars will have the knowledge and skills to:

1. Recognize the importance of all four domains of a scholar’s life to their overall career satisfaction
2. Utilize a structured process designed to initiate and support conversations on the challenges of achieving better work/life integration
3. Identify for themselves targeted areas for achieving better work/life integration

**Addressing Equity and Inclusion**

*Learning Objectives for Equity and Inclusion:*

Scholars will have the knowledge and skills to:

1. Improve and expand understanding of equity and inclusion, and how diversity influences mentor-scholar interactions
2. Recognize the impact that conscious and unconscious assumptions, preconceptions, biases, and prejudices bring to the mentor-scholar relationship and how to manage them

**Building Research Self-Efficacy**

*Learning Objectives for Research Self-Efficacy:*

Scholars will have the knowledge and skills to:
1. Identify signs of self-efficacy that resonate when conducting research related tasks and define self-efficacy and its four sources
2. Articulate their role in building their own research self-efficacy
3. Assess the influence of others on their research self-efficacy
4. Devise strategies to support others’ research self-efficacy

### Achieving Independence

**Learning Objectives for Independence:**

Scholars will have the knowledge and skills to:

1. Define independence, its core elements, and how those elements change over the course of a mentoring relationship
2. Identify the benefits and challenges of achieving their own independence, including the sometimes conflicting goals of simultaneously achieving independence and while securing grant-funded research objectives that are independent from their mentors

### Seeking Professional Development

**Learning Objectives for Professional Development:**

Scholars will have the knowledge and skills to:

1. Identify the roles mentors play in their overall professional development
2. Develop or revise their individual career development plan
3. Recognize and engage in open dialogue on balancing the competing demands, needs, and interests of mentors and scholars, e.g., research productivity, grant funding, creativity and independence, career preference decisions, non-research activities, personal development, work-family balance, etc.
Curriculum Overview
Content, Format, Implementation, and Assessment

Content
Mentoring is collaborative. Ideally, scholars and mentors engage as partners through reciprocal activities such as planning, acting, reflecting, questioning, and problem-solving. Successful mentoring relationships are those in which scholars reach the individual milestones that allow them to progress to the next stage along the trajectory for a sustainable career. Scholar success is defined as scholars having gained 1) personal and professional competencies necessary to define their research goals, 2) relevant experience for that career, and 3) the ability and opportunity to progress toward their chosen career goal.

The content of each session in this curriculum is designed to address common challenges and concerns that scholars experience throughout their career in the role of mentee/protégé. Please note that throughout this curriculum, early career investigators in the mentee or protégé role are referred to as scholars. In this Mentoring Up series, scholars will develop the critical knowledge and skills to proactively and effectively address these challenges and navigate their mentoring relationships and career progression. Topics addressed include:

❖ Maintaining Effective Communication
❖ Aligning Expectations
❖ Approaching Work-Life Integration
❖ Addressing Equity and Inclusion
❖ Building Research Self-Efficacy
❖ Achieving Independence
❖ Seeking Professional Development

While acknowledging that several of the topics are overlapping, we intentionally focus on one topic in each session to allow scholars to delve more deeply into each. Session facilitators who use these training materials are encouraged to read through all of the materials ahead of time so they can proactively highlight linkages between topics throughout the training and/or decide to merge or skip some activities or topics altogether.

Audience
This curriculum is intended for training early career investigators in academic research. While the individual activities and cases included in the curriculum may describe a specific type of research or a specific aspect of a mentoring relationship, the curriculum as a whole is designed to benefit a broad range of scholars irrespective of the research they are engaged in or the stage of their mentoring relationships. These curricular materials, as well as others that target mentors and scholars at other stages of their training, are available at https://www.CIMERproject.org
The following training outline is an example of how the sessions might be structured as five sessions lasting one to two hours. Topics have been paired and organized based on their connection and relevance to each other. While the spacing between these sessions is flexible, former participants found separating them by 1-2 weeks to be effective as it allows time for reflection and practice.

<table>
<thead>
<tr>
<th>2-Hour Sessions</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Introductions</td>
</tr>
<tr>
<td></td>
<td>Maintaining Effective Communication</td>
</tr>
<tr>
<td>Session 2</td>
<td>Aligning Expectations</td>
</tr>
<tr>
<td></td>
<td>Approaching Work/Life Integration*</td>
</tr>
<tr>
<td>Session 3</td>
<td>Addressing Equity and Inclusion</td>
</tr>
<tr>
<td></td>
<td>Building Research Self-Efficacy</td>
</tr>
<tr>
<td>Session 4</td>
<td>Achieving Independence</td>
</tr>
<tr>
<td></td>
<td>Seeking Professional Development</td>
</tr>
</tbody>
</table>

*This will be introduced in Session 2 and discussed again in Sessions 3 and 4.

Facilitators may want to consider alternate session pairing and length, such as two four to five hour sessions. One should also be aware that the Approaching Work-Life Integration session suggests check-in meetings with the coaching groups in each of the subsequent sessions. We have not carved out this time from sessions 3 and 4, but you may wish to reserve 10-15 minutes for these small groups to meet.
Introduction to Facilitation
Introduction to Facilitation

Role of Facilitators

The following materials were designed to assist you in your role as facilitator of the Mentoring Up curriculum. Specifically, these materials will help you guide the scholars as they work through their thoughts and ideas and engage in self-reflection and shared discovery. Importantly, your role is not to teach others, but rather to guide them in learning how to be a mentor. As a facilitator, your role is to:

➢ Make it safe - Take time to tell the group members that the training sessions are a safe place to be honest about their ideas and feelings. Everyone’s ideas are worth hearing. Reinforce the expectation of confidentiality; what is shared within the group should stay within the group.

➢ Keep it constructive and positive - Remind members of your group to keep things positive and constructive. Ask the group how they want to deal with negativity and venting. Remind them that the training is about working together to learn and help discuss useful solutions to common barriers and obstacles, not to merely complain about the current situation or to discount the ideas of others in the interest of a personal agenda.

➢ Make the discussion functional - At the start of each session, explain the goals of the session to the group. Try to keep the group on task without rushing them. If the conversation begins to move beyond the main topic, bring the discussion back to the main theme of the session.

➢ Give members of the group functional roles and responsibilities - Assign or ask for volunteers to take notes, keep track of time, and report to the entire group at the end of the session. Functional roles help keep participants engaged.

Give all participants a voice - In a group, there are likely to be issues of intimidation and power dynamics that can play out in ways that allow certain members of the group to dominate while others remain silent. At the start of the conversation, mention that the group is mixed by design, and point out that a diversity of perspectives is an essential part of the process. Remind group members to respect all levels of experience. It’s important that everyone’s voice is heard.
Group Dynamics: Suggestions for How to Handle Challenges
(Face-to-Face Implementation*)

What do I do when no one talks?
➢ Have everyone write an idea or answer to a question on a piece of paper and toss it in the middle of the table. Each participant then draws a piece of paper (excluding their own) from the center of the table and reads it out loud. All ideas are read out loud before any open discussion begins.

➢ Have participants discuss a topic in pairs for three to five minutes before reconvening as an entire group.

➢ Ask the group: “This topic seems challenging for us...why do you think that is?”

What do I do when one person is dominating the conversation?
➢ Use a talking stone to guide the discussion. Participants may only talk when holding the stone. Each person in the group is given a chance to speak before anyone else can have a second turn with the stone. Participants may pass if they choose not to talk. Importantly, each person holding the stone should share their own ideas and resist responding to someone else’s ideas. Generally, once everyone has a chance to speak, the group can move into open discussion without the stone.

➢ Use the Constructive/Destructive Group Behaviors Exercise. Each participant chooses their most constructive and destructive group behavior from a list (see following section). Each person writes the two behaviors on the back of their table tent. Then, participants share their choice with the group and explain why they selected those behaviors. This exercise also helps provide the group with a vocabulary so they may name these behaviors as they later note them in themselves and others. It provides a lighthearted and nonthreatening way that they can help each other stay on track.

➢ Acknowledge the contributions of the person dominating the conversation but then say that you would like to hear another’s view or thoughts before moving on. Try to be comfortable with silence until another person speaks up.

What do I do when the group members direct all their questions and comments to me, instead of their fellow group members?
➢ Each time a group member talks to you, move your eye contact to someone else in the group to help the speaker direct his/her attention elsewhere.

➢ Ask the participants for help in resolving one of your own challenges. For example, ask them for advice on how to deal with an apathetic peer mentor. This helps the group members stop looking to you for the right answers and redirects the problem-solving and discussion focus to the entire group.

What do I do when a certain person never talks?
➢ Have a different participant initiate each day’s discussion so that different people have the chance to speak first.
➢ Assign participants in the group different roles in a scenario or case study and ask them to consider the case from a certain perspective. Ask the participants to discuss the case in the entire group from the various perspectives. For example, some participants could consider the perspective of the scholar, while others consider the perspective of the mentor.

➢ Try smaller group discussions (two to three participants per group) as individuals may feel more comfortable talking in smaller groups or without certain other individuals present.

➢ Outside of the session, speak with the person about what you are observing and inquire about whether you can assist in making participation easier.

What do I do when the group gets off topic?

➢ Have everyone write the ideas they want to share on a given topic for three minutes. This short writing time will help participants collect their ideas and decide what thoughts they would most like to share with the group so they can focus on that point.

➢ Ask someone to take notes and recap the discussion at the half-way and end points of the session to keep the conversation focused. Remind participants of the day’s topic or a question that was asked.

*An implementation guide for online implementation of the sessions is available upon request from www.cimerproject.org

Constructive and Destructive Group Behaviors

Choose your single most constructive group behavior and your single most destructive group behavior from the list below. Share your choices with the members of your group so they may draw on your constructive behavior and minimize your destructive behavior as you work together.

**Constructive Group Behaviors**

*Cooperating:* Is interested in the views and perspectives of other group members and willing to adapt for the good of the group.

*Clarifying:* Makes issues clear for the group by listening, summarizing, and focusing discussions.

*Inspiring:* Enlivens the group, encourages participation and progress.

*Harmonizing:* Encourages group cohesion and collaboration. For example, uses humor as relief after a particularly difficult discussion.

*Risk Taking:* Is willing to risk possible personal loss or embarrassment for success of the overall group or project.

*Process Checking:* Questions the group on process issues such as agenda, time frames, discussion topics, decision methods, use of information, etc.

**Destructive Group Behaviors**

*Dominating:* Uses most of the meeting time to express personal views and opinions. Tries to take control by use of power, time, etc.

*Rushing:* Encourages the group to move on before task is complete. Gets tired of listening to others and working with the group.

*Withdrawing:* Removes self from discussions or decision making. Refuses to participate.

*Discounting:* Disregards or minimizes group or individual ideas or suggestions. Severe discounting behavior includes insults, which are often in the form of jokes.

*Digressing:* Rambles, tells stories, and takes group away from primary purpose.

*Blocking:* Impedes group progress by obstructing all ideas and suggestions: “That will never work because…”

Introduction to Mentoring Up
Introduction to Mentoring Up

Introduction:

Establishing group dynamics and laying the ground rules are perhaps two of the most important steps to launch a successful Mentoring Up training program. Once established, these guidelines help ensure scholars engage in shared learning of ways to become more effective scholars.

Learning Objectives:

Scholars will have the knowledge and skills to:
1. Learn about other scholars in the group to begin building a learning community.
2. Define mentoring relationships and the role of mentors and scholars.
3. Prepare to establish effective research mentoring relationships with mentors.
FACILITATION GUIDE

Recommended Session Length on Introduction to Mentoring Up: 30 min

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Core Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Learn about other scholars in the group to begin building a learning community.</td>
<td>Introductory activity/ Icebreaker (Activity #1)</td>
</tr>
<tr>
<td>2 Define mentoring relationships and the role of mentors and scholars.</td>
<td>Introduction to mentorship Discussion of effective mentoring relationships (Activity #2)</td>
</tr>
<tr>
<td>3 Prepare to establish effective research mentoring relationships with mentors.</td>
<td>Learn about Mentoring Up</td>
</tr>
</tbody>
</table>

Handouts/Materials for Session
- Copies of introduction and learning objectives
- Copies of participant materials

Introduction:

TELL: Review the introduction and learning objectives for the session.

Objective 1: Learn about other scholars in the group to begin building a learning community (15 min)

ACTIVITY #1: Introductory activity

ASK: Invite participants to interview the person next to them and obtain the following information about one another (5 min):
- Name
- Career stage
- Current position(s)
- What are your interests outside of your career?

DISCUSS: Come back together as a group and have the participant pairs introduce each other to the group with the information that they obtained from their interview (10 min).

Objective 2: Define mentoring relationships and the role of mentors and scholars (10 min)

ACTIVITY #2: Discuss Previous Research Mentoring Relationships
TELL: Mentorship is a professional, working alliance in which individuals work together over time to support the personal and professional growth, development, and success of the relational partners through the provision of career and psychosocial support. From the National Academies “The Science of Effective Mentorship in STEMM” released in October 2020.

Effective Mentoring has been linked to enhanced self-efficacy, persistence; research productivity, higher career satisfaction, and enhanced recruitment of underrepresented minorities into biomedical research related career pathways. At this stage in your career, you are likely both a mentor and a mentee.

DISCUSS: Think about either your current or a previous research mentoring relationship. What are some of the aspects of your relationship that have been most beneficial to you? (5 min)

TELL: There are many attributes of effective mentoring relationships. Over the next few sessions we are going to cover a couple of these attributes, including effective communication, aligning expectations between a mentor and a mentee, fostering work-life integration, acknowledging the role of equity and inclusion, building your own research self-efficacy, achieving independence as a researcher, and seeking professional development.

**Objective 3: Prepare to establish effective research mentoring relationships with mentors (5 min)**

TELL: As a scholar, you have something to contribute to the mentoring relationship. Scholars and mentors need to communicate their mutual needs to clarify the role of the mentoring relationship. (5 min)

“Mentoring Up” is taken from the concept of “Managing up” from the business world and refers to the active role that scholars have in shaping the mentoring relationship. Scholars who mentor up:

- Think and assess what they are seeking from their mentors
- Shift from thinking about good and bad mentors to the core attributes of effective mentoring relationships
- Recognize that effective mentoring is not just about mentors guiding scholars, but also about scholars guiding mentors – mentoring up
- Learn more about recent theoretical practical and research advances to guide development of effective mentoring skills
- Become familiar with key resources to continue building your skills as scholars (and mentors)

TELL: Suggest that throughout the session, you record concrete strategies for mentoring up on the worksheet included in the participant materials for this session.

Reference/ Resource for “Mentoring Up”:


Throughout this curriculum, scholars will have the opportunity to discuss Mentoring Up strategies as they relate to the different module topics. In addition to the tables with strategies found in each chapter, we provide below an empty table to be used as a tool by trainees as they go through the curriculum. Any additional strategies discussed can be noted below.

<table>
<thead>
<tr>
<th>Module</th>
<th>I can more effectively “mentor up” if I……</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Mentoring Up (General Strategies)</td>
<td></td>
</tr>
<tr>
<td>Maintaining Effective Communication</td>
<td></td>
</tr>
<tr>
<td>Aligning Expectations</td>
<td></td>
</tr>
<tr>
<td>Approaching Work/ Life Integration</td>
<td></td>
</tr>
<tr>
<td>Approaching Work/Life Integration</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Addressing Equity and Inclusion</td>
<td></td>
</tr>
<tr>
<td>Building Research Self-Efficacy</td>
<td></td>
</tr>
<tr>
<td>Achieving Independence</td>
<td></td>
</tr>
<tr>
<td>Seeking Professional Development</td>
<td></td>
</tr>
</tbody>
</table>