



IDEAL Research

Building Cultures of Excellence in Research Spaces

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Cultures of Excellence

- Culture = How groups of people work and live, and it is shaped by underlying values and norms.
- ► Excellence = WHAT is done + HOW it is done.
- ► Cultures of Research Excellence = Exceptional science done ethically + inclusive working environments with positive interpersonal dynamics + development and support of lab members to build productive, meaningful careers.
- ▶ Building Cultures of Excellence = Acknowledging culture is manifested in how individuals behave—and this means that culture is not something fixed or given, but rather is something that groups can create, or change + Acknowledging power dynamics and building trusting relationships between individuals and within groups, as well as forming habits that can help build careers.

HHMI-NCPRE Labs That Work...For Everyone Program: OVERVIEW





HHMI-NCPRE Labs That Work...For Everyone Program: LOGBOOK



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Cultures of Excellence

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How to Use this Professional Development Logbook

The logbook is designed to help you integrate concepts and to reflect on your learning process. Use the logbook to practice, reflect, and build your own skills and knowledge. Its section numbers correlate with those of each online episode.

There are five visual cues used for sections of this logbook:



Practice

Opportunities for you to put specific tools to use—to test them out in a low-stakes environment. You will be introduced to a range of tools that can help you navigate the dynamics of lab life. The activities have been designed to help you practice using them so they can become part of your professional toolkit.

Reflection

Structured reflection questions followed by open space for you to capture thoughts or observations that are not explicitly a part of the practice opportunities. Structured reflections have been shown to increase creativity and productivity in professionals. Pausing to reflect regularly can help you keep track of questions, ideas to try, emotions, and more. Take the time to draw, bullet point, or record in a way that works for you to integrate concepts from this course into your professional habits.

Lab Manual

Throughout this program, you will be developing lab manual sections that reflect your values and philosophy for a lab you might run or be proud to join. Early users have found it helpful to create a separate document or file and work on all emerging lab manual sections there. Engaging with this exercise will give you an opportunity to apply your values and think through environments in which you can be productive and fulfilled. Whether you use your emerging lab manual one day in a lab of your own, or use it to help you assess labs you might join, making notes and drafting sections as you go will benefit your professional and leadership development.

Integration

Periodically, you will find integration exercises or reminders. These will help you identify key skills and points to consider; they will challenge you to integrate your observations and thinking into clear takeaways useful to you.

☆ Key Concept

Text that introduces concepts, tools, and literature based information is marked with a star. These sections present key highlights to keep in mind while going through the program.







Episode 1.1 Cultures of Excellence Introduction

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Scene Synopsis

New grad student Ana Sofia Flores arrives for her first day in the lab of Dr. Jules Sorenson and finds herself immersed in the interpersonal dynamics of a high-productivity research lab. She accompanies postdoc Dr. Jayna Bell to a meeting with colleagues in a collaborating chemistry lab led by Dr. Malcolm Heideberg. Tensions rise over the differing working styles and objectives of the two labs; the chemists and biologists "other" their colleagues based on their disciplines, dismissing their work and its value.









Reflection In Small Groups.

- 1. How do you define a culture of excellence in a research environment? Thinking about what you identified as the characteristics of a culture of excellence, write down a few elements that were present or missing in the two labs.
- 2. What features of labs in which you have worked (currently, or another time in your career) exemplify and/or detract from a culture of excellence?
- 3. What issues did you recognize in this first scene? What challenges, what opportunities? Thinking about what you wrote above, about observable characteristics in labs of excellence, what did you see of those? What elements that contribute to a culture of excellence were missing?
- 4. Some of the characters in this scene denigrate the work of their colleagues based on how chemists are or with the implication that the biologists don't understand the complexity of the work done by the chemists. Is this helping either side work through the challenges in the collaboration? What effect is this having on helping them work through the challenges in the collaboration?

National Practice: Articulating Your Values

Leadership is not about having power; it is about having control over your own life. Knowing yourself and centering your values in your career is key to developing your career and making good decisions about it. Values direct our thoughts, attitudes, and behavior. As you take responsibility for building professional skills and managing your career, aligning your values and aspirations—and keeping them aligned over time —can help you stay centered and on a track that matches who you want to be and how you want to live.

Articulating your values is the starting place. Being clear on your values helps clarify decision-making because it can highlight what issues you are willing to let go—and which ones you are not.

S Practice: Articulating Your Values In Small Groups.

Who do you admire? The people we admire often embody the values we care about. Think of two people, taking a moment to consider the quality of their work and character, how they embody their values, and how each exemplifies excellence. Now, list their names and specifically what you admire about each of them.

Circle FIVE items that you value most in guiding your life; add your own if not already represented on this list.			
Achievement Adventure Authenticity Autonomy Community	Fairness Financial Stability or Money Friends & Family Helping Society Honesty	Personal Growth Professional Recognition, Respect Rationality Relationships Reputation	Why are values relevant? Values are the principles by which we
Compassion Competence Creativity Curiosity Decisiveness Dedication	Humor Independence Inspiring Others Integrity Intelligence Justice	Responsibility Security Self-Respect Stability Status Tolerance	live. Your values can help define the environment in which you are likely to function best, and the conditions of a job that will keep you motivated.
Duty Empathy Excellence	Loyalty Open-Mindedness Personal Faith or Religion	Wisdom Work Ethic Work-Life Balance	

Episode 1.1 Cultures of Excellence

Reflection: Your Values and Choices In Small Groups.

How did you make the choices you did to narrow your selection to five values?

Reducing a long list of values to only five requires us to focus. Many of the most serious dilemmas you will face in your career will arise from conflicts between strongly held values: loyalty to a friend vs. your professional integrity, or a conflict between your work ethic and a desire for a good work-life balance, or a conflict between helping society and your personal ambition or desire for achievement and recognition. Reflect on how you made the choices you did, getting to only five values.



Scene Synopsis

The male members of the Heideberg lab watch the World Cup at a billiards lounge. Harold sinks the 8 ball and feels his lab status is in jeopardy. He asks Darren for another chance on the synthesis, to no avail. Ana Sofia takes materials to the Heideberg lab and meets Meena, who mentions preparing for an upcoming poster session. A friendship between the two starts to form.









Reflection In Small Groups.

1. Bias that leads to in-grouping and out-grouping can exist in many different ways. Meena is excluded from the World Cup/billiards event, and Harold is sidelined in the group. Are these manifestations of in/out grouping? Are they intentional? What effects might such "social" interactions have on work in the lab?

Take a few minutes and make notes about biases that may be present in your current environment— biases that lead to favoritism and those that lead to differential treatment that isn't favorable.

- 2. Are you contributing to any of those? If so, how? Remember that bias need not be malicious to contribute nonetheless to "othering." No one is immune to bias.
 - cultural biases socioeconomic nationality language field of study age gender
 - racial familial responsibilities educational background smell, voice, weight disability
- 3. Consider the kinds of bias that may cause or result in exclusion in lab or research environments:
- 4. What can you do to see and address your own biases?

Reflection In Small Groups.

5. How inclusive is your lab group (inclusivity could be: everyone in the group knows how to pronounce each other's names and their meaning; members feel comfortable bringing meals from their own culture; sharing family information; the lab acknowledges or celebrates lab members' varying religious/spiritual faiths or holidays; people share language lessons/common phrases, or learn greetings and polite conversation (please/thank you) in others' native language; people have access to accommodations without judgement)?

What can—and will—you do to mitigate barriers to inclusivity in your own lab group?

6. How do power dynamics create or hinder cultures of inclusion and excellence? In your cohort discussion group, identify and explore the expressions of power in the scenes at the billiards/back in the lab.

What are the expressions of power on display? Identify and label at least three specific examples.

Are expressions of power contributing to the problems in the collaboration? Are those expressions of power advancing or undermining the team in creating a more productive and inclusive environment?