DEVELOPING A CIRTL PATHWAY PROGRAM FOR POSTDOCS

presented by KRISTIN WINET & GAIL BURD
THE UNIVERSITY OF ARIZONA | ACADEMIC AFFAIRS
The University of Arizona is dedicated to Developing Space and Programs for Evidence-Based Learning
Faculty Professional Development

Office of Instruction and Assessment
Office of Digital Learning
Faculty Learning Communities
Learning to Learn Initiative

see https://academicaffairs.arizona.edu/

Future Faculty Professional Development

CIRTL Certificates
UG Learning Assistant Training Program
Graduate Certificate on College Teaching
Graduate Center
Postdoctoral Affairs
UArizona CIRTL Program

Provides options for requirements at each level of CIRTL certification
• Associate
• Practitioner
• Scholar

Practitioner Level offers three choice:
• Certificate in College Teaching
• Teaching As Research Project
• Co-Teaching Experience

Each choice also includes an FLC, CIRTL Course, or CIRTL Workshop
TODAY'S PRESENTATION:
Co-Teaching for Postdocs

AGENDA

• Introduction
• Findings from 2021-2022 pilot study
• New Postdoc Pathway Program
• Next Steps
• Open up to discussion
All in all, I think I look a lot more experienced as an instructor and also more genuine when I say I am dedicated to teaching (which I am!).

DR. MORGAN CARTER, 2020-2021 POSTDOC PATHWAY FELLOW
POSTDOCS & CO-TEACHING?

WHAT WE DID FIRST

FALL 2020
- Hosted Happy Hour With Office Of Postdoctoral Affairs
- Organized Working Group To Research Postdoc Co-teaching Opportunity
- Decided To Start With Co-teaching
- Identified Two CIRTL Postdocs Who Achieved Associate Level & Matched With Faculty

SPRING 2021
- Applied For IRB Approval
- Held Orientation Meeting For Co-teaching Teams
- Asked Teams To Co-teach One Unit, Keep Teaching Journals, & Meet Weekly
- Ran Co-Teaching Pilot
- Approved One-year Program Structure

FALL 2021
- Kicked Off First Cohort Of Nine Postdoc Pathway Fellows
PILOT STUDY

Postdoc Pre-Survey and Post-Survey*

Postdoc Interviews**

Teaching Mentor Interviews

Journal Analysis (*forthcoming)
CO-TEACHING TEAM #1

Dr. Morgan Carter*, postdoc in Plant Sciences, co-taught with Dr. Betsy Arnold, also in Plant Sciences, in a small graduate seminar, PLP500: Principles of Plant Microbiology. We matched them by reaching out to the department directly & asked if anyone was interested in working a postdoc training in evidence-based teaching.

*Both postdocs volunteered & had prior training in CIRTL (MOOCs and workshops) & had participated in local faculty learning communities (FLCs).

CO-TEACHING TEAM #2

Dr. Liang Zhang, postdoc in Information Sciences, co-taught with Dr. Loukas Lazos, Professor in Electrical and Computer Engineering, in a large (200+) undergraduate course, ECE175: Computer Programming for Electrical Engineers. We matched them by reaching out to Dr. Lazos, who is experienced in evidence-based teaching.
REQUIREMENTS FOR CO-TEACHING

COURSE:
• Any modality that is synchronous
• Course of any length
• Aligned with postdoc’s future teaching goals

CO-TEACHING:
• Short-term & intensive (3-4 weeks in a 16-week class)
• Collaborative—\textit{not} block teaching or guest-lecturing
• Take place between units (to experience a full “snapshot” of teaching life)
• Involve both parties in the planning, teaching, & assessment of course
• Allow the postdoc to contribute to the unit using their own strengths/ideas
• Include a weekly meeting to discuss & plan for upcoming class sessions
• At least one formal teaching observation for postdoc’s portfolio
PRE- AND POST-SURVEY QUESTIONS

PRE-SURVEY QUESTIONS

1. What do you want to learn about effective teaching?
2. What are you most nervous about when it comes to teaching?
3. What does “learner-centered” teaching mean to you?
4. What kind of teacher training have you had in the past that you might rely on in this co-teaching experience?
5. Right now, how prepared do you feel to teach with your co-teaching mentor? (Likert scale)
6. How prepared do you feel with the following teaching responsibilities? (Likert scale)

POST-SURVEY QUESTIONS

1. What did you learn about effective teaching?
2. How many hours per week did you spend on your co-teaching?
3. How well did the journaling and weekly meetings help you reflect on your co-teaching?
4. Which active learning strategies did you use in the classroom?
5. What prior training in teaching did you draw on most during your co-teaching experience?
6. Did you encounter any classroom management problems or issues that your training didn’t prepare you for?
7. Did this experience help you re-think your professional teaching materials (teaching philosophy, CV, etc.)?
8. What was the most challenging part about this co-teaching experience? Why?
9. What specific things did you learn from your mentor?
10. How prepared do you feel with the following teaching responsibilities now?

*Questions in yellow are the ones we focused on in the follow-up interviews and are specifically reporting on today.*
ANALYSIS FROM PRE- & POST-SURVEYS

Effective teaching: shift from instructor-centered to student-centered mindset

Perceived Levels of Preparedness* went up in 4/9 categories & went down in 1/9

What training can’t prepare you for: meaningful conversation with mentors & dealing with the unexpected

Co-teaching & revising professional materials
“I hope to observe mature courses in a US context to learn teaching skills and have the opportunity to practice some of the methods I have learned from CIRTL.”

“I want to learn how to develop testable content, both choosing what students should learn and deciding how to convey it most effectively. I am also interested in learning how to teach an upper-level course on a more technical topic...and how to tailor lessons for smaller vs larger classes.”

“Don't put too much pressure on the students! For example, I used to say things like 'this is an easy question'. But, it may make some students feel bad if they don't know the answer.”

“So many things! But I think the biggest take-away for me is that when students have more agency and ownership of course content, they connect to the material better.”
PERCEIVED LEVELS OF PREPAREDNESS?

- Designing a syllabus
- Planning lessons
- Leading discussion
- Active learning
- Grading

Figure 1: Pre-Survey Levels of Preparedness

Figure 2: Post-Survey Levels of Preparedness
ACTIVE LEARNING TECHNIQUES EMPLOYED?

- Collaborative Work
- Exam questions (remember, understand, & apply)
- Small-group discussion
- Inquiry- or project-based learning
- Exam questions (analyze, evaluate, & create)
- Case studies or real-world application
- Student presentations

- In-class writing
- Think-Pair-Share
- Knowledge checks (“one minute papers”)
Through honest conversations with my mentor I was able to see that a LOT of teaching (especially upper-level) is just you **deciding what you think is relevant and most helpful** using your best judgement.

**Don’t put too much pressure** on students, because they are learning this course for the first time and they might face all kinds of unexpected problems.

I had a student completely freak out at me because they were overwhelmed with the course and life (pandemic). I tried to work through it on my own but got advice from my mentor as well. It was helpful to see **how she handled the situation**.
DID THIS IMPACT YOUR PROFESSIONAL MATERIALS?

“I learned a lot from this experience, and especially I found a lot of problems that I didn't notice before. The design of class content and time management are very important. Teaching is an art, and it needs long-term practice. I will write on this experience in my teaching philosophy statement.

“My teaching statement has gotten more evidence-based, with the citations to prove it, and I can back it up with examples of how I've done things in a classroom. I added a teaching part to my personal website that links to the module I developed. I feel a lot more confident about discussing teaching including course design, evaluation, and content delivery.”
DATA FROM POSTDOC INTERVIEWS

Themes/Trends

- Initial nervousness and/or inexperience
- Over-preparing for lessons & confidence
- Struggles with teaching online
- Time management (how long lessons take)
- Learning what they liked/disliked about teaching
- Experiences with incorporating active learning
- Value of teaching experience & agency
- Wanted more concrete ideas for partnerships & more time to plan details
If I hadn’t done this co-teaching experience, I would have never had the chance to know what kinds of issues I’m going to face in an American classroom.

DR. LIANG ZHANG, 2020-2021 POSTDOC PATHWAY FELLOW
### DATA FROM TEACHING MENTOR INTERVIEWS

#### Three Major Takeaways

**Co-teaching was not universally understood**

- We should continue holding orientation meetings once partners are matched
- Define what co-teaching is (co-teaching a portion of a course is not the same as guest-lecturing)

**Teams needed more detailed guidance**

- **Wanted:**
  1) Clearer list of expectations (forms to fill out, & number of meetings expected)
  2) Expectations (number of class meetings and grading)
  3) Better understanding of what is required post-partnership (letters of rec, etc.)

**Co-reflection was most valuable experience**

- Cited personal benefits of meeting after class with their postdocs, correlating with research that shows co-reflecting leads “from results to development”* and creates stronger teaching teams

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*Refers to the process of reflecting on teaching practices to improve future performance.
We spent a lot of time after class talking about things like mistakes I used to make when I first started teaching....I wish there was someone that would have done that for me.

DR. LOUKAS LAZOS, CO-TEACHING MENTOR
It made me put into words the tools and approaches that I use and that made me more reflective, too. I haven’t really talked about [my teaching] with anyone before, so it was really nice to have those conversations.

DR. BETSY ARNOLD, CO-TEACHING MENTOR
CHALLENGES

AND HOW WE ARE ADDRESSING THEM

1. Recruiting postdocs for the program
2. Getting permission from PIs
3. Understanding nature of co-teaching
4. Ensuring participants are committed to the program before matching
5. Facilitating matches with faculty doing evidence-based teaching
6. Moving from “deficit” language to growth mindset
7. Keeping track of partnership progress
8. Deciding how to combine both Associate & Practitioner Levels into one year
POSTDOC PATHWAY PROGRAM

ACCELERATED TIMELINE

SEMESTER 1
(PREPARE & PLAN)

- Take CIRTL MOOC
- Participate In A Faculty Learning Community (FLC)
- Identify Faculty To Co-teach With & Design Plan

SEMESTER 2
(TEACH & REFLECT)

- Participate In Postdoc Pathway Learning Community
- Co-teaching Experience (~3-4 Weeks; Unit To Unit) W/ Cohort Check-ins
- Take A CIRTL Workshop (Fall Or Spring)

LEARNING EPORTFOLIO

- Write Reflection & Revise Teaching Statement
- Compile Learning e-portfolio & Submit To CIRTL
NEW WEBSITE
https://academicaffairs.arizona.edu/cirtl-postdoc-pathway

PATHWAY AT-A-GLANCE
Explains how this accelerated program meets the CIRTL outcomes for Associate and Practitioner Level

PATHWAY TOOLKIT & EXAMPLES
Serves as a hub for materials fellows will need during the program (planning worksheet, co-teaching plan, journal prompts, teaching observation templates) & examples & videos from past fellows

LEARNING PORTFOLIOS
Shares resources and examples for fellows when they are ready to create their learning e-portfolios
Postdoc Academy

Interactive online and in-person content built on the National Postdoctoral Association competencies to support skill development throughout postdoc training, from orientation to the next career step.

The Postdoc Academy offers two online free courses via edX

Succeeding as a Postdoc
Building Skills for a Successful Career

Training and facilitator guides are available to run a local Learning Communities that compliment the course runs

For more information: https://www.postdocacademy.org/
Contact Robin Greenler, robin.greenler@wisc.edu
Thank you