Future Leaders in Science Education and Communication

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Postdoctoral Fellows
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- Medical and Graduate School
- 3700 faculty and staff
- 650 postdocs
- Postdoc Executive Committee
Future Leaders in Science Education and Communication

- **Postdoc Training Program**
  - Teach skills in science communication and active learning methods

- **Components**
  - Training course
  - Hands-on experience

- **Goal**: Improve postdoc career-readiness
Training Program: Future Leaders in Science Education and Communication

Learn how to:

1. Seek funding
2. Identify partners/experts
3. Run short training course
4. Get trainees hands-on experience
5. Evaluate program, trainees/peers, metrics
6. Establish the program long-term

90 min session: Design a program at your institution!
1. Seeking funding

- [www.bwfund.org](http://www.bwfund.org)

- Career Guidance for Trainees

- $30,000 (up to 50K)

- 1-year pilot for cost-effective approaches to improve trainee career readiness

- Non-profit institutions; trainees (students, postdocs, career changers)
1. Seeking funding

- Improve basic PhD level skills
- Identify how to develop and grow skills to serve the needs of potential employers
- Explore career options
- Deadline: March 16, 2016 @ 4PM
2. Identify Partners/Experts

- Know your postdocs
  - What are their strengths/weaknesses?
  - What career do they want after training?

- Know your institution
  - What is it good at?
  - What needs improvement?
  - What programs exist?
  - What resources are available?
2. Identify Partners/Experts

• Establish a yearly survey
  – Demographics
  – Training/mentorship
  – Needs
  – Goals
  – Institutional resources

• Rationale
  – 34% of postdocs want to teach but do not have opportunity
2. Identify Partners/Experts

- Partners who champion your cause
  - Office of Postdoctoral Affairs
  - Graduate/Medical School
  - Leadership
  - Departments and Centers

- External partners
  - Boys and Girls Harbor afterschool program
2. Identify Partners/Experts

- Experts to run the course
  - Explore your institution
  - Tap into your network
  - Look local

- Center for Excellence in Youth Education
- Office of Talent Development and Learning
- StoryCollider
- New York Academy of Science
2. Identify Partners/Experts

• Activity

i. Identify a need at your institution
ii. Brainstorm individually
iii. Discuss with your neighbors
iv. Share with the class
3. Run short training course

- Syllabus
- Logistics
- Coaching the experts
- Refresher training sessions
3. Run short training course

• Syllabus
  – 8 sessions (Fall)
    • Communication and Education
    • Active learning/workshops
  – Hands-on experience (Spring)
    • 5th grade outreach
    • Graduate school classroom
3. Run short training course

• Who are your trainees
  – Competitive application
  – Applicant criteria: (i) career goals, (ii) ideal learning environment, (iii) hurdles to teaching
  – Signed consent form (PI and trainee)

• Questions to ask about logistics
  – When is class held?
  – How many sessions?
  – How long is each session?
3. Run short training course

• Coaching the experts
  – You know your population and their needs
  – Clearly articulate your desired program goals
  – Respect their expertise
  – Meet before and after they plan their class if possible.
  – Going meta: modeling and demoing
3. Run short training course

• Refresher course
  – Closer to hands on experience
  – Workshop model
  – Forces time commitment to hands on experience
3. Run short training course

• Activity
  – What is your topic area?
    • Teaching
    • Industry
    • Academia
    • Science policy
    • Communications
    • Other
3. Run short training course

• Activity
  – Plan your class topics and logistics
    i. Brainstorm individually
    ii. Share in group with other of the same topic area
4. Provide trainees experience

• Develop skillsets with hands-on experience
  – During the short course
  – At least 2 opportunities after the course
    • 5th grade science outreach and education
    • Graduate level teaching
4. Provide trainees experience

• Explore the local community
  – Consult with your partners

• Benefits
  – Find ways to give back
  – Showcase the diverse talents of postdoctoral community
4. Provide trainees experience

• Explore inside your institution
  – Consult with your partners
  – Show data

• Challenges

• Benefits
  – Fill institutional need
  – Raise awareness
4. Provide trainees experience

• Examples
  – In class demos
  – Additional workshops
  – Team with an internal partner
  – Grow external partnerships
5. Evaluate everything

• Why track?

• Trainees/peer

• Program overall

• Tracking the evaluations
5. Evaluate Everything

• Why track and evaluate
  – Program improvement
  – Longitudinal comparisons for trainees
  – Strong justification for continued funding
  – Recruit trainees, experts for course, hands-on mentors
5. Evaluate everything

• Trainees
  – Director to Trainee
  – Peer to Trainee
  – Teaching mentor to Trainee
  – Self

• Importance of peer to peer feedback
5. Evaluate everything

• Evaluation
  – 1-5 rating in 5 Qs
  – Comments

• Benefits
5. Evaluate everything

- Program overall

1 - The core classroom sessions were organized in a logical sequence.
2 - The core classroom sessions provided an appropriate balance of instruction and practice.
3 - The co-directors were helpful and available throughout the program.
4 - The course helped me develop my teaching skills.
5 - The course helped me develop my science communication skills.
6 - I would recommend this program to other postdoctoral fellows.
5. Evaluate everything

• Tracking
  – Unusual requirements
    • Peer to peer
    • Longitudinal for same activity
  – Software tools
    • Course management systems (Blackboard, canvas etc)
    • Survey Monkey
6. Establish the program long term

- Prepare institutional press release

- Share program evaluations w/ leadership

- Identify offices which support trainee development

- Graduate School, OPA, Office of Academic Enrichment

Request budget for subsequent years
Sharing Time!

• Activity
  i. Finish prep of mock syllabus
  ii. Fill out the exit form
  iii. Share with your group
  iv. Share with the session