

March 16, 2023 Education Working Group Call

Attendees: Cazimir Kowalski, Abby Lewis, Jody Peters, Olivia Tabares, Alyssa Willson, Gerbrand Koren

Regrets: Dexter Howard

Agenda/Notes:

1. Looking for a fun rabbit hole to go down? Check out the cherry blossom forecast material Abby shared: <https://cherryblossomwatch.com/peak-bloom-forecast/>
2. Postdoc Opportunity to Develop Undergrad Environmental Data Science Education:
The University of Notre Dame will appoint and work closely with a postdoctoral associate that will be based at California State Polytechnic University, Humboldt (Cal Poly Humboldt). We are looking for an individual who is excited about working with collaborators across multiple institutions including EFI and disciplines to make data science education more available to Indigenous and Hispanic students and to promote STEM graduate education for these students.
We are looking for someone who is:
 1. Excited to make data science education more available to Indigenous & Hispanic students
 2. Proficient in R and/or Python coding
 3. Thoughtful about the cultural and personal needs of students
 4. Interested in living between the redwoods and the sea in Humboldt County, CaliforniaApplication review starts April 17.
Find additional details and apply at: <https://bit.ly/nd-humboldt-postdoc>
3. Updates or Requests for Input on different projects
 - a. Ethics in Forecasting Project Manuscript Updates
 - i. Authorship guidelines
 - ii. Updates on writing
 - Figure Set 1 - pretty close. Ready to be read in comparison to the other Figure Sets to determine how well things flow. Added info to the Notes to the Instructor
 - Figure Set 2 - Olivia will add image of fisheries
 - Figure Set 3 - Caz added text!
 - Presented this module to 4 undergrads at Cal Poly Humboldt to get feedback.
 - Ready for feedback from the group
 - Figures Set 4 - Gerbrand added ideas! We like the module and look forward to additional details. Nice balance with US/Indigenous perspective from Fig 3 and the global perspective

- iii. Copyright for figures/tables - need to make sure to get this for the examples. Abby will check in with the editor about this
 - If needed, EFI/Jody has connections with Alistair and Dominique so we can check with the first authors for figures for Figure set 2 and 3
 - But it would also be good to share the manuscript with the authors to let them know that their materials are being used
- iv. Homework: Gerbrand to continue to add text, Group to go over Caz's figure set, add rubric for Student Evaluation section, and the group to continue to look over Figure Sets 1 and 2 for consistency across sections.
- v. Olivia is presenting EFI DEI/EDU activities at ESA
 - Would like to get feedback from the group over the next couple of months on activities. For example Caz's work with students at Cal Poly Humboldt
 - Alyssa, Tess from BU and Caz have all mentored students at CPH over the past three years so we can provide a summary/overview of those efforts
- b. Macrosystems EDDIE Updates
 - i. Whitney submitted her paper on Module 8 - using forecasts to guide decision making!
 - ii. Working on R markdown versions of the module to complement the Shiny app
 - Module 6 on quantifying uncertainty - https://github.com/MacrosystemsEDDIE/module6_R
 - Rmarkdown with questions for students. This will be revised and will be trialed at a course at VT in the next month
 - Hope to do something similar for data assimilation as well.
 - Not sure if will do this for the intro module and the visualization modules
 - iii. Want to continue to make connections between ND and VT about next steps since the Macrosystems EDDIE and Sloan activities have similarities and if there were opportunities for synergy that would be great
- c. Unconference Ideas
 - i. Are there products/projects that would be useful for the Unconference (and beyond)?
 - Post issues here: <https://github.com/eco4cast/unconf-2023>
 - Olivia has been thinking about something related to teaching students about data wrangling - how to handle large databases. In addition to intro to R also more specifics about data wrangling
 - Resources shared by Alyssa related to this and to Abby's thoughts below
 - <https://bookdown.org/mikemahoney218/IDEAR/data-wrangling.html>

- This is a step by step resources that says why you do what you are doing. Alyssa has shared this with a number of undergraduate students
 - <https://datacarpentry.org/genomics-r-intro/05-dplyr/index.html>
 - This one would have best practices
 - A course in Advanced data analysis for ecology
 - Hadley Wickham has a book called Advanced R, but Abby hasn't read it yet
 - Abby - people can take courses on R, but not advanced courses on R or best practices in R
 - Alyssa think it is uncommon to have courses on a specific computer program even in computer science
 - Also thinking about data analyses
 - Code reviews - these are important. But it is time consuming and can be daunting. So can we come up with best practices - what does it entail, what are the criteria?
- d. Other potential updates - leaving as a placeholder for future calls
 - i. Anna - Forecasting, Prediction, Projection Vocabulary Manuscript
 - ii. Antoinette's learning goals and concepts
4. On March 8, Brendan from the TeacherCertification.com sent a guide about teaching pedagogy, what pedagogy looks like in the classroom, and teaching techniques and strategies. He thought it would be a useful resource for the Inclusive Pedagogy Resources page. Jody wanted to run this by the group to see if this is something that would be useful to include. See the email below from Brendan.

Hello Ecological Forecasting Initiative Team,

Learning a pedagogy-based teaching method is important for prospective and current teachers who want to keep their students engaged and innovative. Our goal at TeacherCertification.com is to empower the teachers of tomorrow and make it easier to thrive in the profession by providing clear and helpful information, and the team recently developed a comprehensive [Guide to Developing Effective Pedagogical Skills, Strategies & Innovations in the Classroom](#) that presents important information about:

- The foundation of teaching pedagogy
- What pedagogy looks like in the classroom
- Teaching techniques and pedagogical strategies

We believe that your website visitors would greatly benefit from our Guide to Developing Effective Pedagogical Skills, Strategies & Innovations in the Classroom and ask you to share this resource with your community by linking to it on your [Inclusive Pedagogy Resources](#) page.

The team has also recently created a comprehensive guide to [Effective Study Tips to Prepare for Teacher Certification Tests](#), which offers a broader look at teacher certification exams and how students can best prepare.

To learn more about our mission at [TeacherCertification.com](#), our other-up-to-date teacher certification resources, and meet the experts behind our resources, please visit our [about us](#) page.

Thank you for your consideration and for helping to get this vital information out.

Best Regards,

Brendan | Student Success Manager