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Distinguished Teacher-Scholar
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Collaborate

- Eat lunch!
- Catch up!
- Discuss with your group the results of your “assignment”.
- Identify one area where your department or program can improve recruitment efforts.
April Focus

- Evaluation: Why Is This Important and How Do You Do It?
- Administrative Buy-In: How Do You Obtain It?
Evaluation Workshop

Objectives:

1. Explain how to plan an evaluation using MERIT/MIST as example
2. Support you in developing an initial evaluation plan for your program or course
3. Provide information on IRB, evaluation resources, and administrative buy-in
What is evaluation and why do we evaluate?
A Guiding Evaluation Framework: A Values-Engaged, Educative Approach

Evaluation Planning

1. Program/course
2. Evaluation purpose, audience(s), and use(s)
3. Evaluation questions
4. Design and methods
5. Judging quality of program/course
6. Sharing the results
## 1. Program/Course

<table>
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<th>Consider:</th>
<th>MERIT/MIST:</th>
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| Primary goals or objectives?  | 1) Increase # of STEM graduates  
2) Train current and future teachers at the high school and college levels to implement their own MIST-style programs  
3) Develop accessible, on-line resources and discussion boards |
| Who participates?             | Undergraduate students  
Undergraduate and graduate teaching assistants  
High school and community college teachers |
| Who are the staff and/or instructors? | STEM faculty, instructors, and graduate student TAs |
| Main activities?              | • Student activities  
• Summer teacher workshops  
• Develop and maintain online resources and discussion boards |
| Anything else?                | Funded by the National Science Foundation |
2. Evaluation Purposes, Audiences, and Uses

- Why evaluate your program/course?
  - Ex: Understand stakeholder perspectives on program and assess progress towards achieving objectives

- Who cares about the evaluation?
  - Ex: MERIT staff, participating students, NSF

- How do you or others plan to use the results?
  - Ex: Make improvements to program each year, report to NSF
• What is the program/course you’d like to evaluate?

• Why evaluate it? Who cares about the evaluation? How will you use the results?
3. Evaluation Questions

- Formative (i.e. modify the program/course):
  - Ex: Which program components are working well? How might they be improved?

- Summative (i.e. outcomes and impact):
  - Ex: What student and faculty outcomes are associated with program or course participation? How do these compare with baseline measures?
Ex: MERIT/MIST Evaluation Questions

1. To what extent and in what ways did the MIST program increase the number of the UIUC STEM participants (within the courses and overall majors) and STEM graduating participants? (Objective 1)

2. According to the MIST participants, how were they impacted by the program? What, if any, changes (i.e., in study habits, career aspirations, and perceptions/attitudes toward STEM subjects and careers) occurred as a result of their participation? (Objective 1)

3. To what extent is the training provided through the MIST program effective at improving current and future teachers’ use of Merit-style pedagogical techniques and knowledge about STEM subjects? (Objective 2)

4. According to current and future teachers, what was the quality of the online resources and activities provided by the MIST program? (Objective 3)
4. Design and Methods

• Mixed methods design:
  • Observations – instruction and student engagement
  • Pre/post learning assessment – changes in content knowledge
  • Structured surveys – student views on program/course
  • Individual and group interviews – in-depth student experiences

• MERIT/MIST Mixed Methods Design:
  1) A quasi-experimental, non-equivalent comparison of students who participated and did not participate using data from student empirical database
  2) Participant surveys (for students, TAs, and Summer Teacher Workshop participants) with close-ended and open-ended questions
  3) Former participant group and/or individual interviews
• What are the main questions you want to answer?
• What design and methods address these questions?
5. Judging Program Quality

How will you know if your program/course is successful?

- Changes in participant content knowledge
- Participant satisfaction and engagement with program/course
- Provides access and positive experiences for students from underrepresented groups
6. Sharing the Results

- Ex:
  
  - Share full report with key staff and funding agency
  - Create short memo with key highlights to share with stakeholders
  - Meet with stakeholders to discuss findings and potential changes to course/program
  - Share findings with students and let them know what changes you plan to make
• How will you know if your program/course is successful?
• How will you share the results?
Institutional Review Board (IRB)

- Mandatory policies for conducting ethical research with human subjects
  - Confidentiality
  - Consent
- Online training *required* prior to submitting application
- IRB approval takes 4 weeks on average
Resources

Campus consulting:

- QUERIES – research and evaluation: http://education.illinois.edu/edpsy/areasofstudy/queries/consulting
- ATLAS – survey design and analysis: http://www.atlas.illinois.edu/services/stats/surveys/
- Center for Teaching Excellence: http://cte.illinois.edu
- Illinois Science, Technology, Engineering, and Mathematics Education Initiative (I-STEM): http://www.istem.illinois.edu

Evaluation planning:

- Better Evaluation website: http://betterevaluation.org
What challenges do you face regarding administrative buy-in?

What strategies might you use to address these challenges?
Assignment

In what areas do you need administrative support? Develop a realistic strategy to obtain it.
See you on May 15th!

- Plan-of-Action (Guided Working Session)
- Resources and Moving Forward