Abstract

Students majoring in the arts, humanities, business, education, and some social sciences are notably underrepresented in many undergraduate research (UR) programs, but certain strategies can engage faculty and students from every discipline. Given the tremendous benefits of UR for all students, we cannot afford to leave out entire departments. The main barriers to UR involvement are the lack of disciplinarily appropriate models, and definitions of “research” that inadvertently leave out what scholars in non-science disciplines do. UR administrators can build more inclusive and successful programs with the strategies outlined here, thereby developing student research skills, methods, and learning outcomes that take place outside of laboratories—in library stacks, archives, museums, field work, schools, and other community sites.

DISCIPLINARY BARRIERS TO INVOLVEMENT IN UR

- **Terms and definitions of “research” that leave out what many scholars do**

  ![Image](image1.png)

  Do we expect her to make an “original contribution” to Shakespeare studies?

  She seems to be doing research... But what about him?

- **Lack of disciplinarily appropriate (non-science) models of undergraduate scholarly work**

  ![Image](image2.png)

  ![Image](image3.png)

- **UR does not typically contribute to faculty scholarship in many fields**
  - Where the nature of the work is not collaborative, and single authorship is the norm
  - When foreign language competency or advanced training is essential

  ![Image](image4.png)

  ![Image](image5.png)

  Like their mentors, they work independently, in fields that privilege insight and creative inspiration.

  ![Image](image6.png)

  ![Image](image7.png)

  What was his hypothesis?

SIX STRATEGIES FOR CREATING DISCIPLINARILY INCLUSIVE UR PROGRAMS

1. **Define/Characterize UR in ways that include the scholarly work of any discipline. Language matters!**
   - Undergraduate Research, Scholarship, and Creativity
   - “Mentored” rather than “Collaborative”
   - “Methods/Process,” “Research Question/Project Goal”

   ![Image](image8.png)

   In her URSC grant proposal, this student explained her “process,” not methodology.

2. **Make available institutional/internal grants to support URSC in disciplines that do not often qualify for external funding for work involving undergrads.**

3. **Gather and share models of URSC in disciplines that are underrepresented in your program.**
   - Take key faculty to NCUR.
   - Ask colleagues in CUR in those underrepresented disciplines for examples of what their students do.

4. **Advocate for UR mentoring to COUNT**
   - in faculty workload
   - as excellence in teaching for tenure & promotion especially in disciplines in which UR doesn’t contribute to faculty scholarship

5. **Model your campus symposium on NCUR. Modes of presentation matter!**
   - Oral presentation panels (PowerPoint optional)
   - Performances and lecture-recitals
   - Art displays and gallery talks

6. **Learn about inquiry-based work that students are doing in departments underrepresented in UR—and draw the connections from that work to UR.**

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### Humanities
- Archives/Museum textual analysis
- Discrete parts of faculty mentor’s scholarship, e.g., research assistance or analysis of specific part
- Digital documentaries

### Digital Humanities
- Creating databases, curating online collections, writing & publishing for the web
- Translations (with reflection)
- Interviews of authors & scholars; investigations of cultural material

### Mathematics
- Mathematical models (e.g., using Mathematica algorithms to create models)
- Analyzing/Testing mathematical theories
- Pattern identification (e.g., of integers, angles, etc.)

### Proofs
- A Math major at Bridgewater studied the geometry of M.C. Escher’s patterns.

### Business
- Business Case Studies
- Supply Chain Strategies

### Education
- Student-Teachers’ Action Research
- Analysis of Archival Research
- Innovative Pedagogy/ Intervention/Software/ Teaching Tool
- Classroom Observations (informed by Lit Review)

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