Undergraduate Scholarship: Local is global, and global is local

Dr. Bethany M. Usher
George Mason University
Re-creation of a Nasca Textile by Rebecca Nelson
What is undergraduate research?

- Council on Undergraduate Research: Undergraduate research (scholarship and creative activity) is an inquiry or investigation conducted by an undergraduate in collaboration with a faculty mentor that makes an original intellectual or creative contribution to the discipline.
- Mason: Student scholarship is the process of generating and sharing knowledge or creative works.
Why is a global perspective important for our students?

Through global learning, students should:
1. Become informed, open-minded, and responsible people who are attentive to diversity across the spectrum of differences,
2. Seek to understand how their actions affect both local and global communities, and
3. Address the world’s most pressing and enduring issues collaboratively and equitably.

AACU Global learning VALUE Rubric: https://www.aacu.org/value/rubrics/global-learning
UNDERGRADUATE RESEARCH GOES ABROAD

ALSO IN THIS ISSUE
Benefits of Research Fellowships for Undergraduates with Disabilities
Incorporating Undergraduate Research into Teacher Education
Global Intersections with Undergraduate Research/Inquiry

Local
- Local or regional interest
- General interest (implicitly global)
- Internationally or globally focused

Abroad
Learning Outcomes that at Least Four in Five Employers Rate as Very Important

Proportions of employers rating each skill/knowledge area as very important for recent college graduates to have*

<table>
<thead>
<tr>
<th>Skill/Knowledge Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral communication</td>
<td>85%</td>
</tr>
<tr>
<td>Working effectively with others in teams</td>
<td>83%</td>
</tr>
<tr>
<td>Written communication</td>
<td>82%</td>
</tr>
<tr>
<td>Ethical judgment and decision-making</td>
<td>81%</td>
</tr>
<tr>
<td>Critical/analytical thinking</td>
<td>81%</td>
</tr>
<tr>
<td>Applying knowledge/skills to real world</td>
<td>80%</td>
</tr>
</tbody>
</table>

*8, 9, 10 ratings on zero-to-10 scale, 10 = very important
Learning Outcomes that More than Half of Employers Rate as Very Important

Proportions of employers rating each skill/knowledge area as very important for recent college graduates to have*

- Analyzing/solving complex problems: 70%
- Locating, organizing, evaluating information: 68%
- Being innovative/creative: 65%
- Staying current on technologies: 60%
- Working with numbers/statistics: 56%
- Analyzing/solving problems with people from different backgrounds: 56%

*8, 9, 10 ratings on zero-to-10 scale, 10 = very important
Employers say they are more likely to consider hiring recent college graduates who have completed an applied learning or project-based learning experience.

How much more likely is your company to consider hiring recent college graduates if they have had this experience?

- Internship/apprenticeship with company/organization: 60% (94% more likely to consider)
- Senior thesis/project demonstrating knowledge, research, problem-solving, communication skills: 39% (87% more likely to consider)
- Multiple courses involving significant writing: 27% (81% more likely to consider)
- Research project done collaboratively with peers: 24% (80% more likely to consider)
- Service-learning project with community organization: 21% (69% more likely to consider)
- Field project in diverse community with people from different background/culture: 22% (66% more likely to consider)
- Study abroad program: 13% (51% more likely to consider)
Course-based Research
• Many students
• Data-intensive projects
• Emphasizes collaboration
• Needs structure
• Students learn more process skills

Mentored or Individualized Research
• Fewer students
• Intensive projects
• Individualized mentoring
• Flexible
• Students learn more critical thinking skills
The nature of undergraduate research and inquiry

Adapted from Healey and Jenkins, 2009:7,
from http://www.thinkingwriting.qmul.ac.uk/ideas/researchbasedapproach/teachingandresearch
## Developmental approach to inquiry-based learning

<table>
<thead>
<tr>
<th></th>
<th>Traditional Hands-on</th>
<th>Structured</th>
<th>Guided</th>
<th>Student Directed</th>
<th>Student Research</th>
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</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher/Student</td>
</tr>
<tr>
<td><strong>Question</strong></td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher/Student</td>
<td>Student</td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher</td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
</tr>
<tr>
<td><strong>Procedures/Design</strong></td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher/Student</td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
</tr>
<tr>
<td><strong>Results/Analysis</strong></td>
<td>Teacher/Student</td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
</tr>
<tr>
<td><strong>Conclusions</strong></td>
<td>Teacher</td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
<td><strong>Student</strong></td>
</tr>
</tbody>
</table>
“Going to a library... is only part of what happens when many disciplinary professionals pursue research. The term ‘research paper’ conveys to our students the going-to-the-library part but leaves out the critical inquiry part”

Bean 2011: 226
Digitizing Virginia’s botanical records – Andrew Weeks
Hidden in Plain Sight – Center for History and New Media

Explore AMERICA’S past through everyday objects

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Translating Maya Hieroglyphs – Erica Gallis
Antimicrobial activity in the bedbug – Monique vonHoek and students
Human Rights in Peru
Geology 302: Mineralogy

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Local

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Thank you!

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