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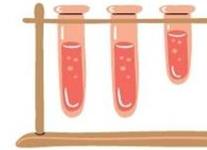
# Cultivating Graduate Attributes through Engagement in High Impact Practices (HIPs): Undergraduate Research Experiences

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# High Impact Practices (HIPs) in Higher Education

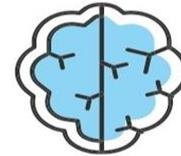
- HIPs provide “significant educational benefits for students who participate in them—including and especially those from demographic groups historically underserved by higher education” (see <https://www.aacu.org/trending-topics/high-impact>).
- High impact practices (HIPs) provide many benefits for students. Undergraduate research, in particular, provides students with meaningful outcomes:
  - Enhanced student success: higher grade point averages (GPAs), retention rates and graduation rates,
  - Post-graduate opportunities for students to pursue advanced or graduate degrees,
  - Provide a foundation for success in their future job fields (e.g., Bowman & Holmes, 2018; Sell, Naginey, & Stanton, 2018)



discoveries and connections



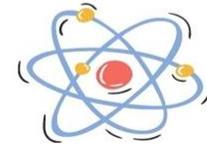
personal and professional gains



grapple with real-world questions



meaningful hands-on experience



address complex problems



enhance experience and improve marketability

# Undergraduate Research as a HIP

- While all HIPs have been shown to benefit students, **undergraduate research** helps students to develop skills that help them succeed both academically and professionally.
- In the last decade at UNCW we have developed a series of initiatives aimed at opening access for all students to participate in undergraduate research:
  - Support for Undergraduate Research and Creativity Awards (SURCA)
  - Interdisciplinary Minority Student Research Group (IMSRG)
  - Community-based Research Across the Curriculum (CRAC)
  - First-Year Research Experience (FYRE)
  - Community College Undergraduate Research Experience (CCURE)



# Assessment Findings: Qualitative

## Completed large-scale qualitative analysis of student reflections from engagement in HIPs 2013-2019

- 1130+ reflections analyzed from 73 different projects
- 13 researchers from 5 different academic disciplines
- Process helped finalized shared characteristics of HIPs at UNCW

## Undergraduate Research-specific Findings

- 212 reflections from 22 different projects
- 5 themes emphasized student development from engagement & transferability of skills
  - “Real-World” Experience Helps Realize Outcomes
  - Professional Development that Transferred across Contexts
  - Research Skills Connected to Discipline/Field
  - Mentoring Impact
  - Transferred across Contexts

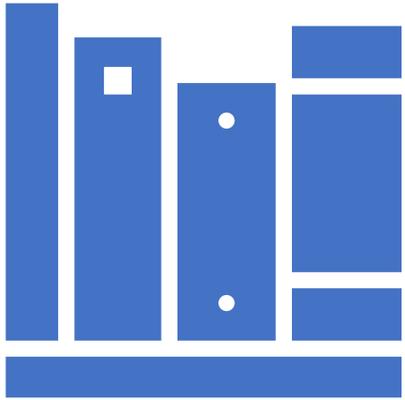


# Assessment Results: Quantitative

- Interdisciplinary team of faculty adapted existing HIPs, UR scales to use in assessment of outcomes from student engagement in multiple undergraduate research experiences:
  - Community College Undergraduate Research Experience (CCURE)
  - Interdisciplinary Minority Student Research Group (IMSRG)
  - Community-based Research Across the Curriculum (CRAC).
- Results support multiple several claims:
  - Gains reported across groups who participated in experiences; significant gains for marginalized student populations
  - Variation in outcomes by levels; suggests need for intentional scaffolding
  - Introductory-level experiences more focused on skills development; gains reported across technical skill development (e.g., locating and evaluating sources, collecting and analyzing data)
  - More advanced-level experiences students recognize importance of mentorship and see stronger connection to career

# Key Takeaways

- Intentional design can create meaningful high impact learning experiences that also provide access to diverse/marginalized populations.
  - Ex: CCURE; scaling to other groups (e.g., military/veteran)
- Direct support to faculty, staff, students can lead to meaningful models that help with scalability and sustainability.
  - Ex: IMSRG; CAIT model (Collaborative, Adaptive, Interdisciplinary & Trauma Informed)
- Scaffolding experiences needs to be intentional to help students move along continuum and benefit from each stage of engagement
  - Ex: CRAC; integrated into the Sociology-Criminology major at 200, 300, and 400-levels
- Transferability of skills across contexts demonstrates that engagement in HIPs like undergraduate research can lead to benefits beyond the research project itself
  - Ex: CCURE students access to internships, apprenticeships
- Institution benefits from supporting HIPs like undergraduate research
  - Ex: development of institutional partners (transfer institutions & community partners)



# Thank you!

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