Completing the Research Cycle: The role of libraries in the publication and dissemination of undergraduate student research

Stephanie Davis-Kahl, Illinois Wesleyan University
Merinda Hensley, University of Illinois at Urbana-Champaign
Sarah Shreeves, University of Illinois at Urbana-Champaign

Available at: https://works.bepress.com/stephanie_davis_kahl/18/
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Setting the Stage: Undergraduate Research

An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline. Council for Undergraduate Research

“Research” is best defined simply as work that enters the current conversation of a particular field in a significant way. Gerald Graff, Professor of English and Educational Studies, University of Illinois at Chicago
Dimensions of Undergraduate Research

- Student, process centered ↔ Outcome, product centered
- Student initiated ↔ Faculty initiated
- All students ↔ Honors students
- Curriculum based ↔ Co-curricular fellowships
- Collaborative ↔ Individual
- Original to the student ↔ Original to the discipline
- Multi-or interdisciplinary ↔ Discipline based
- Campus/community audience ↔ Professional audience

M. Beckman & N. Hensel, CUR Quarterly, Summer 2009 [slide used with permission]

Advocacy for Undergraduate Research

CUR Posters on the Hill
The Liberal Arts Perspective: Enhancing the Culture of Undergraduate Research

Stephanie Davis-Kahl
Illinois Wesleyan University
Methods to Engage Students in their Mathematical Learning Experience

Mari Maelwael, Elizabeth Brubaker, and Lash Hill
Educational Studies Department, Illinois Wesleyan University

Research Question
What teaching methods can we, as math teachers, use to engage students and facilitate their learning of mathematical concepts?

Methodology
- Conducted a self-study in Geometry, Precalculus, and Calculus.
- Implemented engaging lessons and wrote reflections to evaluate effectiveness.
- Extended their knowledge base to make decisions about future practice.

Literature Review

Behavioral Engagement (Teacher Practices)
Teaching can help influence a student’s intrinsic engagement through:
- Modeling appropriate behavior
- Making class interesting
- Using different teaching strategies
- Implementing activities that require higher-order thinking
- Encouraging student participation

Emotional Engagement (Learning Environment)
The following can help engage learners:
- Creating a classroom community
- Fostering student connections
- Utilizing cooperative learning

Cognitive Engagement (Motivation)
Ways to motivate students in and out of the classroom include:
- Creating a sense of purpose in addition to performance goals
- Making the material relevant to students
- Providing regular opportunities for practice

Research shows that teachers need more training in these practices.

Conclusions
- Characteristics of engaging lessons include being goal-oriented and student-centered.
- During this self-study, we learned that we need to make a more concerted effort to engage students in the classroom.
- A possible future study is to look at the effect of engaging lessons on long-term retention of mathematical concepts.

Results and Data Analysis

Table 1: Engagement Strategies

<table>
<thead>
<tr>
<th>Engagement Strategies</th>
<th>Geometry - Practice and Application of Concepts</th>
<th>Precalculus - Polynomials and Functions</th>
<th>Calculus - Derivative and Integrals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' feedback</td>
<td>Assessing and analyzing students' questions</td>
<td>Learning and applying the concepts</td>
<td>Calculating and verifying results</td>
</tr>
<tr>
<td>Students' performance</td>
<td>Evaluating students' understanding of concepts</td>
<td>Assessing students' ability to apply the concepts</td>
<td></td>
</tr>
<tr>
<td>Students' motivation</td>
<td>Encouraging students' participation in class</td>
<td>Calculating and verifying results</td>
<td></td>
</tr>
<tr>
<td>Students' engagement</td>
<td>Engaging students in the learning process</td>
<td>Calculating and verifying results</td>
<td></td>
</tr>
</tbody>
</table>

Whiteboards and Group Work

- Whiteboards: Physical representation
- Group Work: Active participation
- Students' engagement: Higher-order thinking

Artistic Examples
- Students' artwork: Visual representation
- Artistic projects: Higher-order thinking

Class Discussion
- Students' self-reflection: Higher-order thinking
- Student evaluations: Group work

What a Beast Art Thou!

I. Hark, villains, I will grind your bones to dust...

Eric Makanjula (3M)

http://digitalcommons.iwu.edu/jwprc

http://digitalcommons.iwu.edu/jwprc

Series I Vases: Deconstruction (Katherine Bergethon)
Student Publishing

Undergraduate Economic Review

Current Issue: Volume 7, Issue 1 (2011)

Articles

- PDF Medical Tourism: Alternatives to the United States Healthcare System
- PDF Macroeconomic Impacts Of Oil Price Levels And Volatility On Indonesia
- PDF Determinants of Bank Profitability in Ukraine
- PDF Origins and Characteristics of Recent Residential Real Estate Bubbles
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Editor-in-Chief
Tian Mao
Managing Faculty Co-Editors
Professor Michal Seeborg, Economics
Professor Stephanie Davis-Kahl, Ames Library

http://digitalcommons.iwu.edu/uer/
Supporting undergraduate research at the University of Illinois

Merinda Kaye Hensley
Topics
• Diversity issues on campus
• Globalization issues
• The Greek system
• Technology and student life
• Dorm life
• The Chief
The History and Formation of Departmental Libraries at the University of Illinois

Old Main
1867-1873

University Hall
1873-1887

Library Building/Altgeld Hall
1897-1928

Main Library
1928-Present

- 1873 Architecture Library begins in Nathan Baker’s Office and opens to 4th floor of Engineering Hall
- 1878 Baker Hall opens and the Chemistry Library begins
- 1881 Chemistry moves to the New School Laboratory
- 1883 State Laboratory of Natural History opens in the Natural History Building, the library begins in Normal, Ill. in 1921
- 1917 moved from Architecture Building

- 1917 Law School Library opens in University Hall
- 1931 Library moves from Main Library
- 1929 moves to Altgeld Hall

- 1931 Pedagogical Library begins in University Hall
- 1929 moves to Altgeld Hall, renamed Philosophy, Psychology & Education
- 1931 moves to Main Library

- 1930 Mathematics Library opens in the new Mechanics Building, then renamed Agricultural Engineering Building
- 1930 collection in Modern Language, English, Classics, Economics & Sociology
- 1930 collection in Natural History Building
- 1930 collection in Modern Language, English, Classics, Economics & Sociology, moved 2 more departments move to Lincoln Hall

This is an excerpt provided from all departmental libraries at this time. Please see the full report for complete list of departmental libraries and libraries.

Random Roommates: Tiptoeing Around Race
Jennifer A. Scheurle, University of Illinois at Urbana-Champaign
Whiteness and the University Fall 2009

Overview
Randomly assigned interracial roommates get along well enough for the year, but decide to live with other people the following year.

Method

Preliminary Findings
- Biggest stated reason for choosing to separate is perceived lack of communication
- ‘You always do this, but never yours’
- ‘You said because you said it, I really didn’t mean it’
- ‘Did you ever see my bracelet?’
- ‘You’re really serious in any situation’
- ‘Avoidance of topics of race’
- ‘It’s always like this’ (friend’s point of view), then that would be true
- ‘It’s really, we never talked about’
- ‘You’re personal and I’m personal. I never met a person like you before’
- ‘She’s so strong’

Discussion

Suggestions to Work Toward This Goal:
ARAB AMERICANS: STRIVING FOR IDENTITY AT ILLINOIS

INTRODUCTION
On the US Census form, persons of Arab background are asked to select their race and ethnicity. Trying to identify racially as Arab, particularly overseas from Arab countries, especially in the 1950s and 1960s, was very much a part of my understanding of the American experience and my own Lebanese ancestry. I became interested in documenting the Arab American identity in particular, investigating how Arab American identity was formed and identified, what they think about their racial identity, and what they feel about crossing the "White" line.

RECOMMENDATIONS OR IMPLICATIONS FOR UNIVERSITY
Based on the experience of these participants, the University of Illinois is doing a great job teaching Arab American students. The only possible improvement, I think, is to get more Arab American students to get involved in the university. More research is needed to see how the community is taught. White students are not taught as they are from the different cultures. I think Arab American students can help the university in teaching other students about their culture. Also, some students have experienced racism and discrimination which is very likely to happen to other students. The university should make an effort to avoid it.

THEMES

RACIAL SELF-IDENTIFICATION
1. "I don't think I identify as 'Arab', but I don't think I identify as 'White'. I don't feel very comfortable in the 'White' world."
2. "My family is Lebanese, but I don't identify as 'Arab'."
3. "I don't identify as 'Arab' because I don't feel comfortable in the 'Arab' world."

PERCEPTIONS OF ARABS WHO IDENTIFY AS "WHITE"
1. "I think it's important to have our culture and where we come from, but the way we are perceived is..."
2. "I feel very comfortable in the world of my people."
3. "I feel very comfortable in the world of other people."

TIES TO ARAB AMERICAN COMMUNITY/CULTURE
1. "I'm in high school. I don't really know any Arab friends."
2. "I don't think I identify as 'Arab'."
3. "I'm in high school. I don't really know any Arab friends."
For more information on EUI, please visit: [http://www.eui.illinois.edu/](http://www.eui.illinois.edu/)

Merinda Kaye Hensley
Instructional Services Librarian
Opportunities and Challenges in Dissemination and Publication of Undergraduate Research

Sarah L. Shreeves

Courses are (re)designed with the university as the research focus and using ethnographic or archival research methodologies

- Rhetoric 101 (English)
- Sport, Play and Ethnography (Kinesiology)
- Critical Issues in Higher Education (Education)
- Developments in Educational Psychology: Whiteness and the University (Ed)
- Museums in Action: Engaging the Community (Studio Art)
- Asian American Youth (Asian American Studies)
- Research Methods for Consumer Economics & Finance (Ag & Cons Econ)
- Researching Queer Cultures (Gender & Women’s Studies)
During the classes, faculty introduce...

- Research methods
- Research ethics – recruitment, consent, etc.
- IRB process
  - Research summaries are submitted at end of semester
- Intellectual property issues
- Open access issues
- Use of IDEALS as a resource for past research
Student work in IDEALS

- Students have choice to deposit in IDEALS or not
- Students provide abstract and keywords
- Students have been able to anonymize work
- Includes research question, instrument, methodologies, analysis of data and, in some cases, the research data itself

Some quick stats and facts

- Over 65 classes taught since 2002 at the University of Illinois, Illinois State University, Parkland College and over 75 faculty have been affiliated with EUI
- Capped at 25 students
- Research papers and data have been archived since 2006
- Nearly 490 projects archived – approximately 50% of the items are archived
Sample of Student Projects Available in IDEALS

Is There an Invisible Boundary Between the Races at UIUC? (Ashanti Barber)

"Just an 'Exotic-Sounding Name'? Debating the Ku Klux Klan in UIUC History" (Stephen Lane)

Educating our Youth on Queer Topics: Is UIUC Truly a Community Leader? (Kari Britton)

The “U” Word: Undocumented Students in Higher Education (Mayra S. Lagunas)

University of Illinois Myths (Nichol Chontofalsky)

University Admissions of Students with Disabilities: Is Equality Really Best? (Joshua Glaser)

Cultural mapping of dorms (Joshua Myers and Juan-Pablo Herrera-Urizar)

Working in Dining Services: Just a Paycheck? (Sha’Donna Woods)

Top Downloads for: Ethnography of the University Initiative

This Month | This Year | Overall
---|---|---
5. Graduate Students [total: 81] | 5. The Facebook Effect: Social Network Sites and Changing Experiences of LGBT Students at the University of Illinois at Urbana-Champaign [total: 296] | 5. Language Barriers and the International Community [total: 3050]
8. What is a Non-Traditional | | 8. Swine Research Farms [total: 1947]
Opportunities, challenges, questions

Conversations around IP, publication, open access

Archiving original data

How do students decide whether or not to make their work available?

What is the value of archiving original student research?

How many students are actively using previously archived work?

What does this original student research become for the Archives in the long run?

As a student who came to college from a city public school, it was my own undergraduate research experience with Ethnography of the University Initiative that led me to graduate school. - Teresa Ramos (Student)

The chance of publishing...provides a powerful incentive for student authors to do high quality research. - Professor Michael Seeborg

The most important thing I learned from [editing a student journal] is responsibility & cooperation. I listen to different opinions & facilitate the communication between my peers. - Tian Mao (Student)

To allow students' work and research to be archived for future use is a powerful tool for the University. - Jennifer Duffy, Caroline Schreiber, Matt Dixon (Student)

That project, to this day, remains the most interesting research project that I have ever engaged in.

— Andrew Roback (Student)

Quotes from both IWU and Illinois students and faculty.