Scholarship of Engagement

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Evolution of Engagement at Purdue

Timeline

- 1990: Boyer’s “Scholarship Reconsidered” published
- 2001: Kellogg Commission Released “Returning to our Roots”
- 2003: Purdue Office of Engagement Established
- 2004: Promotion & Tenure Task Force Initiated
- 2007: SoE Fellows Program Initiated
- 2011: Engagement Awards Program Initiated
- 2013: Purdue Policy for P&T Revised
- 2014: Faculty Engagement Survey
- 2015: Guidebook and Faculty Development
- 2016: Service Learning Program Initiated
- 2017: Engagement Awards Program Present at NFO
- 2018: SoE Fellows Program Initiated

Purdue University Office of Engagement

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Clarity of Definitions
2018 Faculty Engagement Survey Results

Clarity of Definitions

**Scholarship:**
- innovative with a high level of disciplinary expertise, can be replicated, produces documented results that are impactful, and is professionally or peer-reviewed

**Engagement:**
- collaboration between institutions of higher education and their larger communities for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity

**Scholarship of Engagement:**
- a reciprocal relationship that yields innovations with disciplinary expertise, can be replicated, documented, is professional and/or peer reviewed, and has evidence of impact
Characteristics of Scholarship of Engagement (SoE)

- High level of disciplinary expertise
- Innovative
- Capable of being replicated and elaborated
- Documented results
- Impactful
- Professionally and/or peer reviewed
Examples of SoE

- Laws/public policy
- Video archives, documentaries, films
- Adoption of innovations
- Delivery of products/services
- Changes in professional practice
- Refereed publications
SCHOLARSHIP OF ENGAGEMENT
EXEMPLAR:

MOTORCYCLE SAFETY AT PURDUE (MS@P)

MARIFRAN MATTSON, PHD
“...campaign literally by accident” (Kosmoski, Mattson, & Hall, 2007)
The goal of the Motorcycle Safety at Purdue campaign (MS@P) is to make the road safer for everyone while emphasizing motorcycle safety.

The campaign aims to accomplish this in three ways:

- Encourage motorcyclists to engage in safety practices such as wearing proper safety gear, becoming properly licensed, and obeying traffic laws;
- Encourage drivers of cars and trucks to be aware of motorcycles and to avoid distracted and aggressive driving;
- Encourage friends and family of motorcyclists to talk about motorcycle safety.
Every year more than 1,500 college-age adults DIE in motorcycle accidents.

Watch for motorcycles!

www.itInvolvesYou.com
GEAR UP PURDUE!
Whether you’re on the road or on the field – Gear up and be safe!

- Helmet
- Jacket with padding
- Gloves
- Jeans
- Boots
- Jersey with pads
- Pants
- Cleats
COMMUNITY and NATIONAL PARTNERSHIPS

- Purdue
  - Marketing and Media
  - Football
  - College of Liberal Arts
    - Spring Fest
  - Office of Engagement
    - Service-Learning Grants

- Motorcycle Safety Foundation
  - Funding
  - Network

- Greater Lafayette City Bus

PURDUE UNIVERSITY | Office of Engagement

CityBus
Wherever Life Takes You
COMMUNITY and NATIONAL PARTNERSHIPS

City of West Lafayette
You wouldn't turn without looking
Watch for motorcycles at all intersections
MEASURING IMPACT

- Formative, Process, and Outcome Evaluation
- Annual Survey
  - 3 target audiences
  - Assess changes in knowledge, attitudes, and behaviors
  - Significant changes in awareness of campaign and familiarity with messages
    - Watch message most effective
    - More emphasis on death and injury statistics
- Media Attention
- Reciprocal Partnerships
- Students
- Publications (articles, books, book chapters)
- Promotion on Scholarship of Engagement
SCHOLARSHIP OF ENGAGEMENT IS...

MESSY
TIME-CONSUMING
FULFILLING
INTEGRATING ENGAGEMENT ACROSS MISSION AREAS
General Approach

Learning-Discovery
Amphibian Ecology
Field Herpetology

Learning
Undergraduate Mentoring
Graduate Mentoring
Internships
Service Learning
Hellbenders

Discovery
Wildlife Conservation
Forest Management
Aquatic Ecology

Integrated University Engagement

Engagement-Learning
Teacher Training
Graduate Workshops
Student Clubs
PK-12 Education for Wildlife

Engagement-Discovery

Engagement
Secondary Approach

Define the issue

Engage external partners

Create Outputs

Document and Disseminate Outputs

Report impact
Increased interest in “education” jobs
Poor communication skills
Lack of an understanding of Extension
STEM in schools
Develop the skills
*Weeks 1-4*
- Extension: history, logic model, program development, delivery

Design the program
*Weeks 5-8*
- Develop original program

Deliver the program
*Weeks 8-15*
- Deliver programs
3D Model: Develop Skills

- Theory
- Logic Model
- Audience
- Program Development
- Practice Delivery

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3D Model: Design

General Audience

![Image of The Hellbender poster]

**The Hellbender**

*Protect Indiana’s Living Relic*

- Hellbenders prefer cool, rocky, swiftly flowing streams. Their presence indicates good water quality.
- Hellbenders feed mainly on crayfish, not fish.
- Hellbenders can bite when provoked, but they are not venomous and their slime is not poisonous.

If you find a Hellbender, take a photo and contact the Indiana Department of Natural Resources: 812-334-1131.

![Image of hellbender sticker]

**Help save the hellbender**
General Audience
General Audience
Design the content - Anglers
Design the content - Kids
3D Model: Design & Deliver

Deliver the Program- Local workshops

Feast Like a Hellbender
4 Programs targeting:
   Anglers, teachers, youth, and farmers
School programs
   Short stories, art, and mascot
   24 schools
   3 counties
Design the content – Teachers
3D Model: Deliver

> 80 presentations
10 workshops
13 peer-reviewed pubs
Scholarly Impact

> 80 presentations

10 workshops

13 peer-reviewed pubs
Evaluating Extension Programming

- Pre- and post-surveys
- Informs future extension programming
It can start with Research
Hardwood Ecosystem Experiment (HEE)

100-yr study
3 Treatments
- Control
- Even-aged
- Uneven-aged
3 Replicates
Hardwood Ecosystem Experiment
It started with Research

1. Survival of timber rattlesnakes: investigating individual, environmental, and ecological effects.
2. Effects of timber harvests and silvicultural edges on terrestrial salamanders.
3. Seasonal variance in hematology and blood plasma chemistry values of the timber rattlesnake.
4. Unexpectedly low rangewide population genetic structure of the imperiled eastern box turtle.
5. Relatedness and other finescale genetic population processes in a declining forest-dwelling turtle, *Terrapene c. carolina*.
6. Ranavirus infections among sympatric populations of larval amphibians and Eastern Box Turtles (*Terrapene carolina carolina*).
7. Effectiveness of two artificial cover objects in sampling terrestrial salamanders.
8. Seasonal variation in plasma reproductive markers of male and female Box Turtles,
9. Hibernal thermal ecology of *Terrapene c. carolina* within a managed forest landscape.
10. Short-term forest management effects on the long-lived reptile
11. Temporal variance in hematologic and plasma biochemical reference intervals for free-ranging eastern box turtles (*Terrapene c. carolina*).
12. SalaMarker: A code generator for use of visible implant elastomers.
13. Identification of 12 polymorphic microsatellite loci for the eastern box turtle
Ended with Extension and Teaching
Focus Groups with K-12 educators

- Lack of professional training in natural resources
- Lack of knowledge to use outdoor space
- General mistrust of the outdoors and forestry
About

The Nature of Teaching includes three signature programs: Wildlife, Health and Wellness, and Food Waste. Each signature program provides standards-based lesson plans free as a downloadable PDF. Lesson plans are classroom ready for grades K-5. The Nature of Teaching also offers professional development workshops for teachers focused on science, the environment, and getting students connected with nature.
Program Model

Formal Classes/professional development
  • Nature of Teaching Mammals
  • Nature of Teaching Birds
  • Nature of Teaching Forest Ecology

2-Day workshops
Impact Metrics:

Publications
(#, downloads, citations, etc.)

Workshops
(knowledge, implementation, change, etc.)

Percent Gain in Positive Attitudes
P&T Documentation

Define the issue

Engage external partners

Create Outputs

Document and Disseminate Outputs

Report impact
Engaging Students with Extension

**Issue:** The 1999 Kellogg commission reported on the future of state and land-grant universities. That report highlighted that an engaged institution must: **enrich students’ experiences by bringing research and engagement into the curriculum and offering practical opportunities for students to prepare for the world they enter.** In response to these needs, Dr. Williams developed five Extension initiatives to engage university students with Extension: #1 an innovative service learning course, #2 an Extension internship program, #3 a formal Extension course for graduate students, #4 graduate student Extension workshops, and #5 connecting graduate student research with Extension.
Dr. Williams collaborated with numerous scholars (in addition to undergraduate and graduate students) on his Engaging Students with Extension signature program that resulted in the outputs below, including: Dr. Linda Prokopy (FNR), Dr. Laura Bowling (AGRY), Dr. Aaron Thompson (HLA), Mr. Brian MacGowan (FNR), Mr. Jarred Brooke (FNR), Dr. Steve Abel (Associate Provost of Engagement), and Dr. Fred Whitford (BTNY).
Create scholarly outputs

Peer-reviewed Extension Publications (*post-tenure; total downloads 41,886)

Websites
The Nature of Teaching. 2010-2016 Totals: 18,175 visits, 35,766

Exhibits for Small (10,000) Audiences
1. Tooth Sleuth, Imagination Station 2014
3. Tooth Sleuth, Clay County Science Day 2013
4. Tooth Sleuth, Oak Park Conservatory 2013
5. Tooth Sleuth, Explorium of Lexington 2013

Workshops and Programs
1. 2017 Nature of Teaching: Maine Wildlife Curricula. Augusta, Maine. (n=10)
2. 2016 Nature of Teaching: Maine Wildlife Augusta, Maine. (n=8)
3. 2016 Nature of Health and Wellness. West Lafayette, IN. (n=17)
4. 2016 Nature of Health and Wellness. Kokomo IN. (n=14)
5. 2016 Nature of Health and Wellness. SIPAC. (n=16)
6. 2016 Nature of Health and Wellness. Davis PAC. (n=18)
8. 2015 Bringing natural resources to K-8. Tippecanoe School Corporation Elementary Science Committee. Lafayette, IN (n=25)
10. 2014 Junior Master Naturalist, Herpetology Workshop. Clinton County Soil and Water Conservation District. (n=20)
11. 2014 Mind Boggling Event, Tippecanoe County Parks Dept. Lafayette, IN. (n=30)
13. 2013 The Nature of Service Learning. Lafayette, Indiana (n=75)
14. 2013 Forest Education. Martell Forest, West Lafayette, IN. (n=60)
15. 2013 Animal Diversity. Tippecanoe Co. Mayflower Mill (n=120)
Impact

A total of 56 students have taken this service learning course and all have participated in developing and delivering Extension programs. Fifty-one percent of the student’s have produced a numbered, peer-reviewed Extension publication. Those publications are lesson plans and used in the Nature of Teaching teacher workshops (that have trained hundreds of teachers). The nine publications students co-authored have been downloaded 275,268 times.

In 2015, Dr. Williams was awarded the College of Agriculture Kohls outstanding undergraduate teaching award. In 2016, he was awarded the prestigious University-level Charles. B. Murphy Award for Undergraduate Teaching for his scholarship and integration of Extension with undergraduate learning. In 2017, he was awarded the Office of Engagements Service Learning award for his innovative Service Learning course. In 2018, Dr. Williams was inducted into Purdue’s Book of Great Teachers.
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Chapter 2 • Drafting Impactful Dossiers
Chapter 3 • Evaluating Engagement Dossiers
Chapter 4 • Awards and Resources
Drafting Engagement Dossiers

- Define the issue
- Engage external partners
- Document outputs

Report impact
Framing the Dossier
Evaluating Engagement Dossiers

Engagement  →  Scholarship  →  Impact
# Evaluation Questions

## Assessing Scholarly Work

<table>
<thead>
<tr>
<th>Expertise</th>
<th>Innovation</th>
<th>Replicated</th>
<th>Documenting</th>
<th>Reviewed</th>
<th>Impactful</th>
</tr>
</thead>
<tbody>
<tr>
<td>How is the work viewed within the scholar's field?</td>
<td>How does the work build upon the knowledge, research, or practice in the field?*</td>
<td>Was the methodology clear and sound?</td>
<td>How has the work been shared with colleagues?*</td>
<td>How has the scholar's work been shared: published articles, academic presentations, exhibition of work, creative performances?*</td>
<td>What actions did the intended audience take as a result of this work?*</td>
</tr>
<tr>
<td>How does the work respond to an identified need?*</td>
<td>Are results valid and reliable?</td>
<td>How has the work added to the body of knowledge?*</td>
<td>How has the scholar's work resulted in the receiving of an award, honor by peers?*</td>
<td>How has the scholar's work resulted in testimonials, letters of recommendation, or adaptations that affirm the value of this work?*</td>
<td>What measurable impacts occurred as a result of the effort (e.g., knowledge gained, information shared, behavior changed)?*</td>
</tr>
<tr>
<td>Did the work result in the development of new information, methods or approaches?*</td>
<td>Were limitations discussed?</td>
<td>Where is the work accessible?*</td>
<td>How were the developed materials or processes subsequently used by others?*</td>
<td></td>
<td></td>
</tr>
</tbody>
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* Asterisk indicates questions that require more detailed analysis and reflection.
Resources and Recognition

- **Service Learning**
  - Five fellows per year
  - Designated community partners
  - Up to $5K project support
  - Support for instructional design content and assessment

- **Scholarship of Engagement Fellows**
  - 12 fellows system-wide
  - $1.5K per project
  - Complete scholarship of engagement project
  - Mentor review of promotion documents

- **Societal Impact Fellows**
  - Up to 12 per semester
  - $1.5K per project
  - Focus on SI identity and development of a grant proposal

- **Awards & Recognition**
  - Faculty Engagement Scholar
  - Faculty Engagement Fellow
  - Corps of Engagement
  - Service Learning
  - Christian J. Foster Award for contributions to K-12 STEM education
  - Jefferson Awards (Multiplying Good)
Transformation Has Begun

2010 – 2014

17

Individuals promoted and/or tenured fully or partially on the basis of engagement

2015 – 2022

113

Individuals promoted and/or tenured fully or partially on the basis of engagement
THANK YOU