

SCHOLARSHIP OF ENGAGEMENT

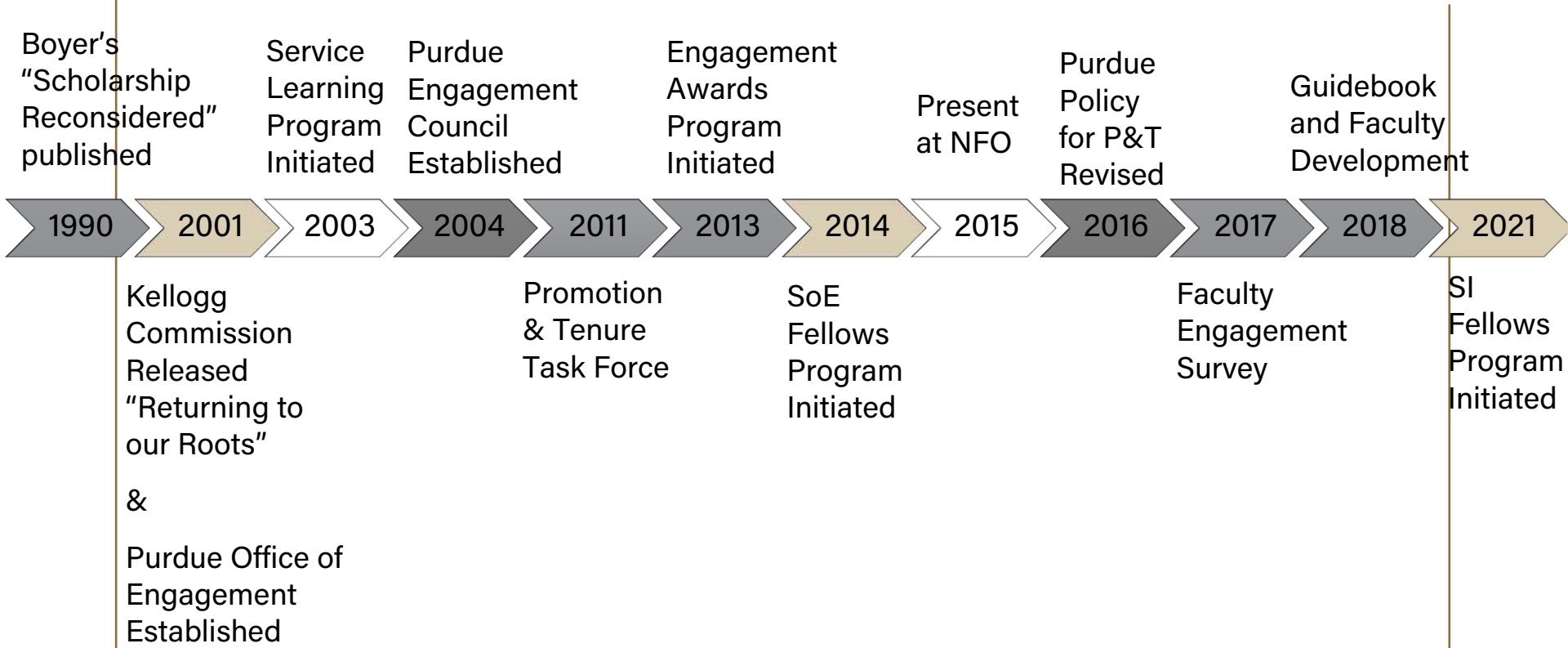
Steve Abel, Associate Provost for Engagement

Marifran Mattson, Professor and Head, Brian Lamb
School of Communication

Rod Williams, Assistant Provost for Engagement

Evolution of Engagement at Purdue

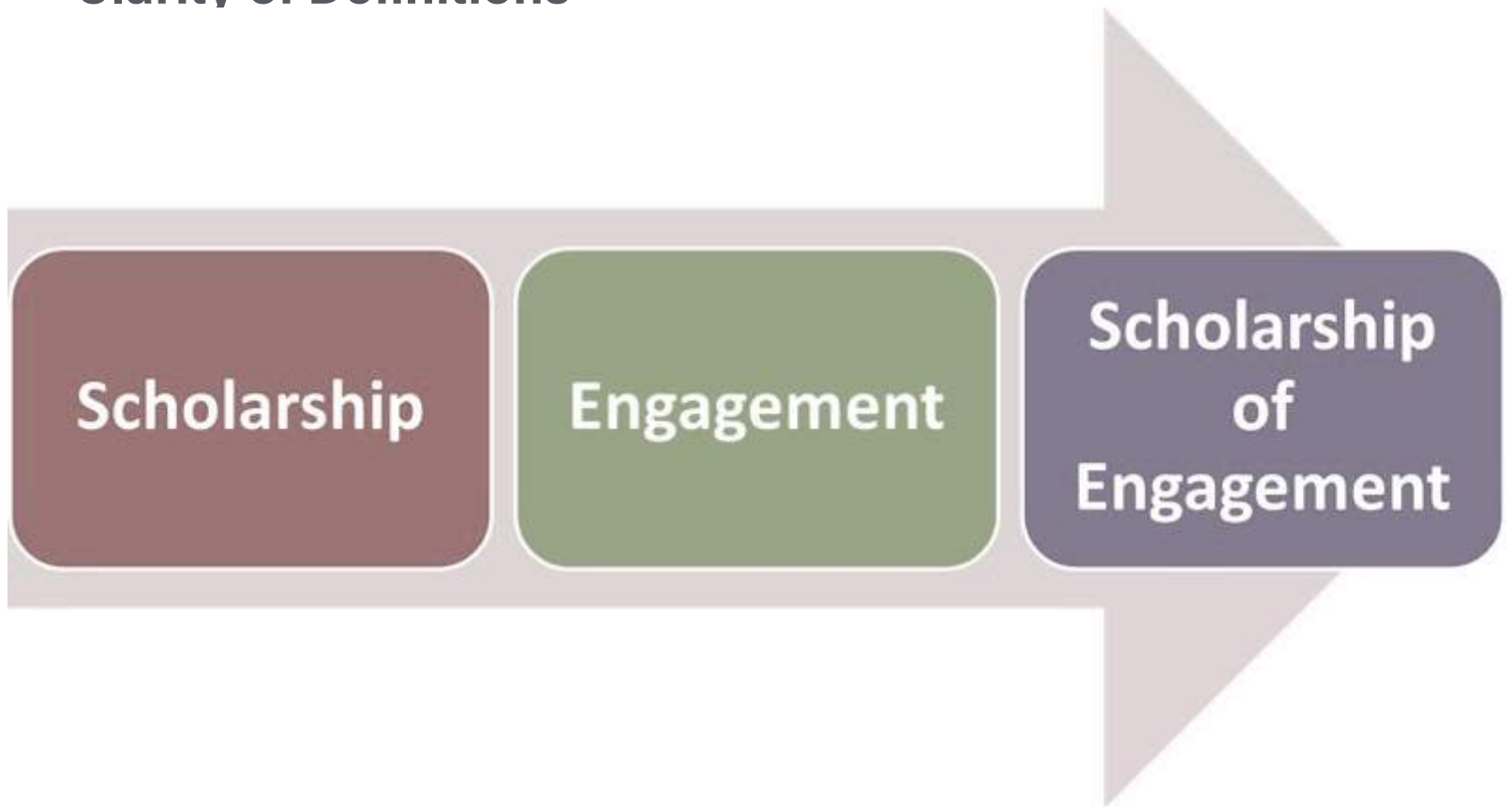
Timeline



&
Purdue Office of Engagement Established

2018 Faculty Engagement Survey Results

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)



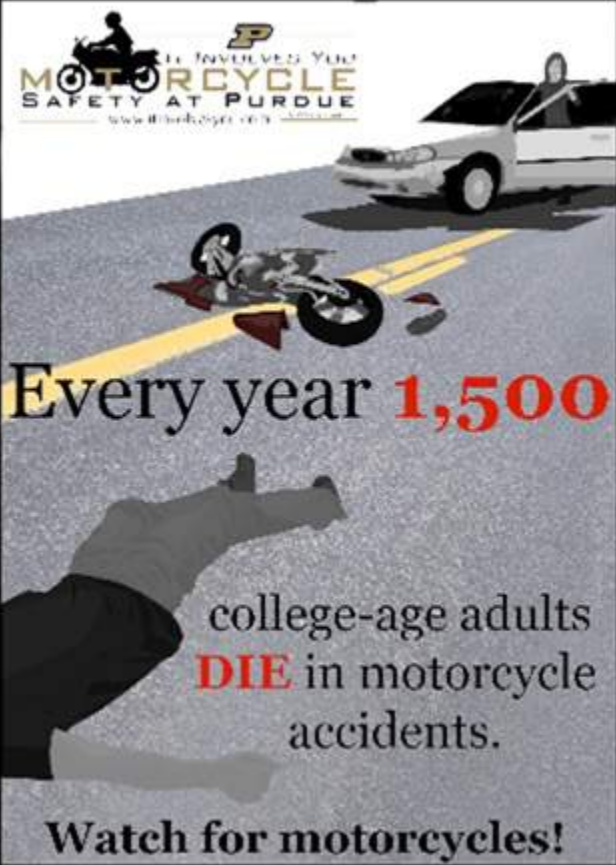
Goals of MS@P

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.

PRIMARY MS@P MESSAGES



IT INVOLVES YOU
MOTORCYCLE
SAFETY AT PURDUE
www.itinvolvesyou.com

Every year **1,500** college-age adults **DIE** in motorcycle accidents.

Watch for motorcycles!



IT INVOLVES YOU
MOTORCYCLE
SAFETY AT PURDUE
www.itinvolvesyou.com

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 HELMET

JACKET WITH PADDING JERSEY WITH PADS

GLOVES GLOVES

JEANS PANTS

BOOTS 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



Wherever Life Takes You



Office of Engagement

3/23/2021

12

COMMUNITY and NATIONAL PARTNERSHIPS



City of West Lafayette



PRIMARY MS@P MESSAGES

**YOU WOULDN'T TURN
WITHOUT LOOKING
WATCH FOR MOTORCYCLES
AT ALL INTERSECTIONS**



IT INVOLVES YOU
MOTORCYCLE
SAFETY AT PURDUE
WWW.EDU@Purdue.edu

**WATCH FOR
MOTORCYCLES
EVERYWHERE**



IT INVOLVES YOU
MOTORCYCLE
SAFETY AT PURDUE
WWW.EDU@Purdue.edu

MEASURING IMPACT

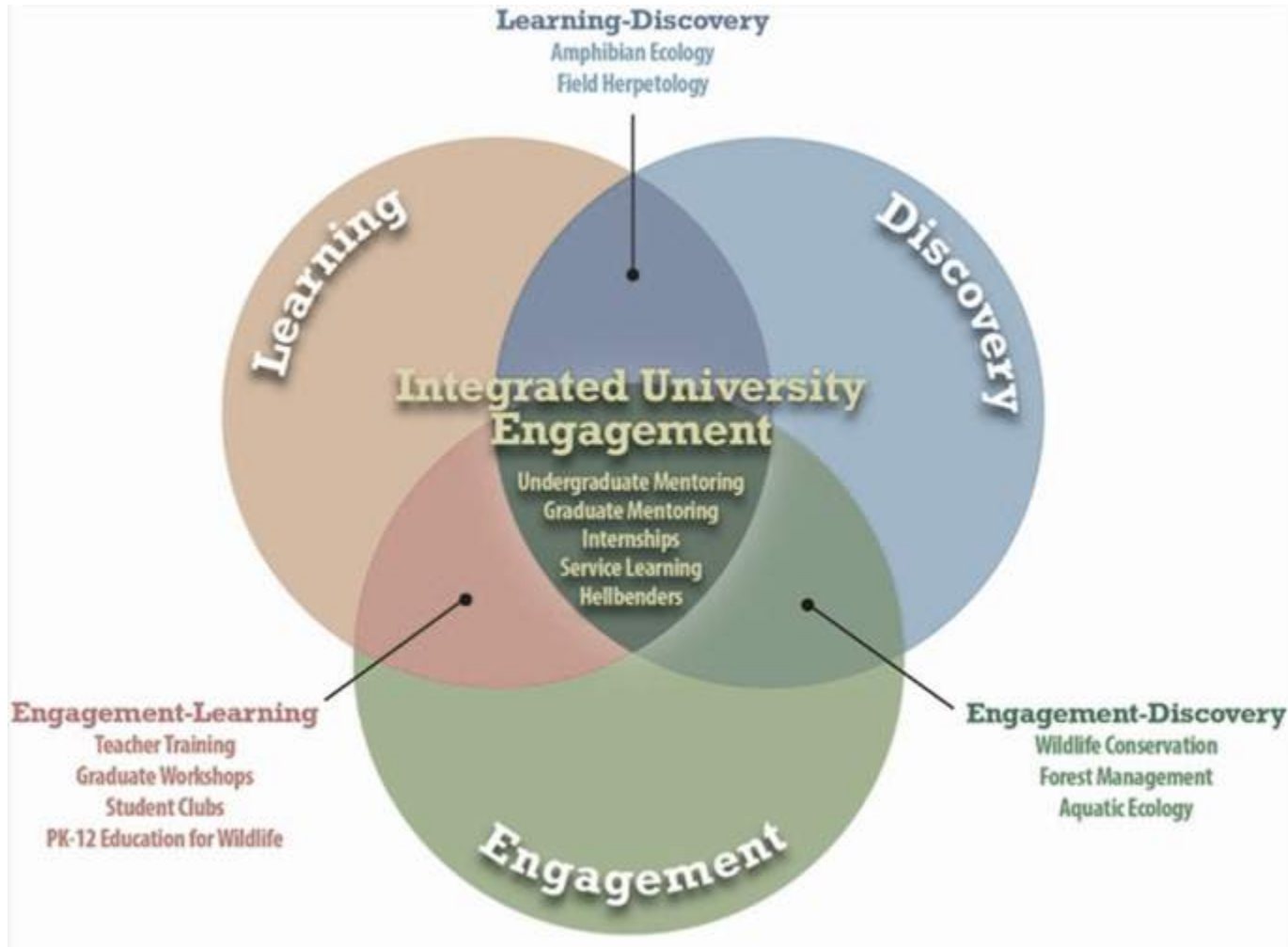
- Formative, Process, and Outcome Evaluation
- Annual Survey
 - 3 target audiences
 - Assess changes in knowledge, attitudes, and behaviors
 - Significant changes in awareness of campaign and familiarity with messages
 - Watch message most effective
 - More emphasis on death and injury statistics
- Media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

SCHOLARSHIP OF ENGAGEMENT IS...

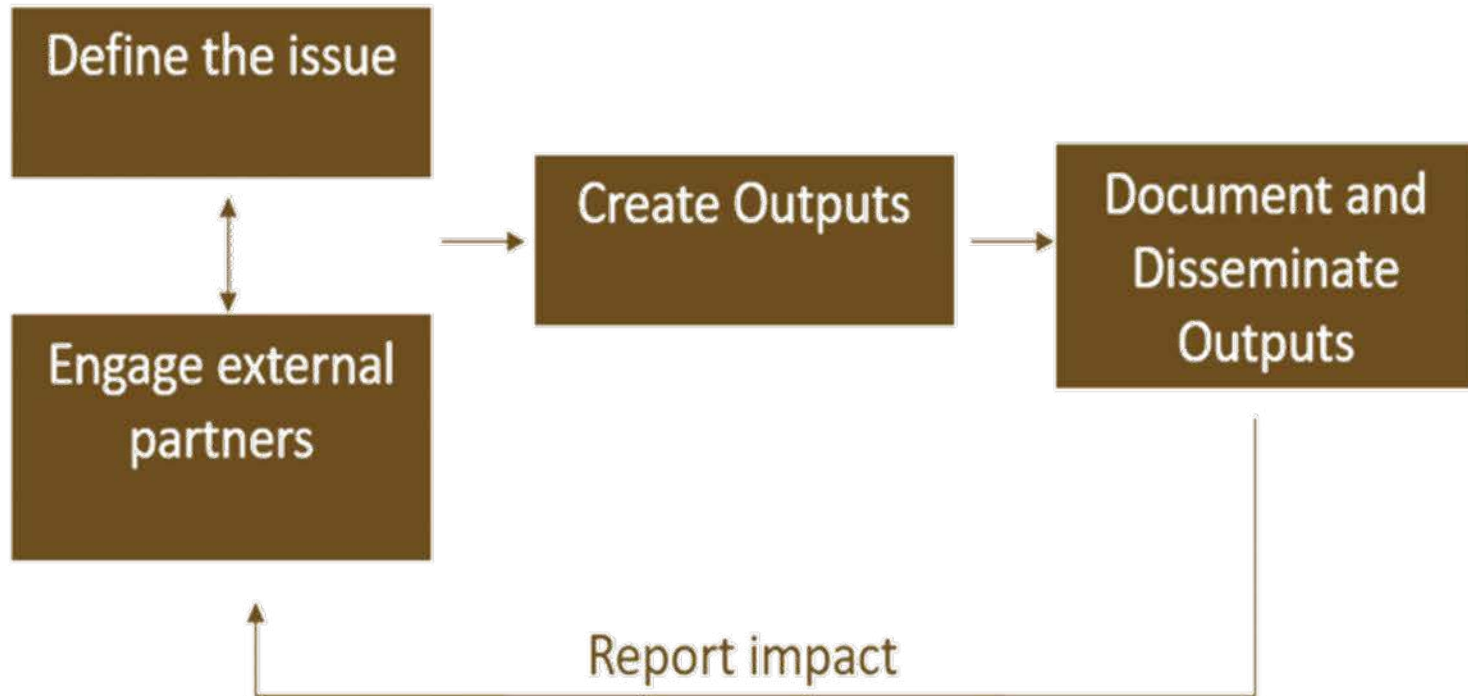
**MESSY
TIME-CONSUMING
FULFILLING**

INTEGRATING ENGAGEMENT ACROSS MISSION AREAS

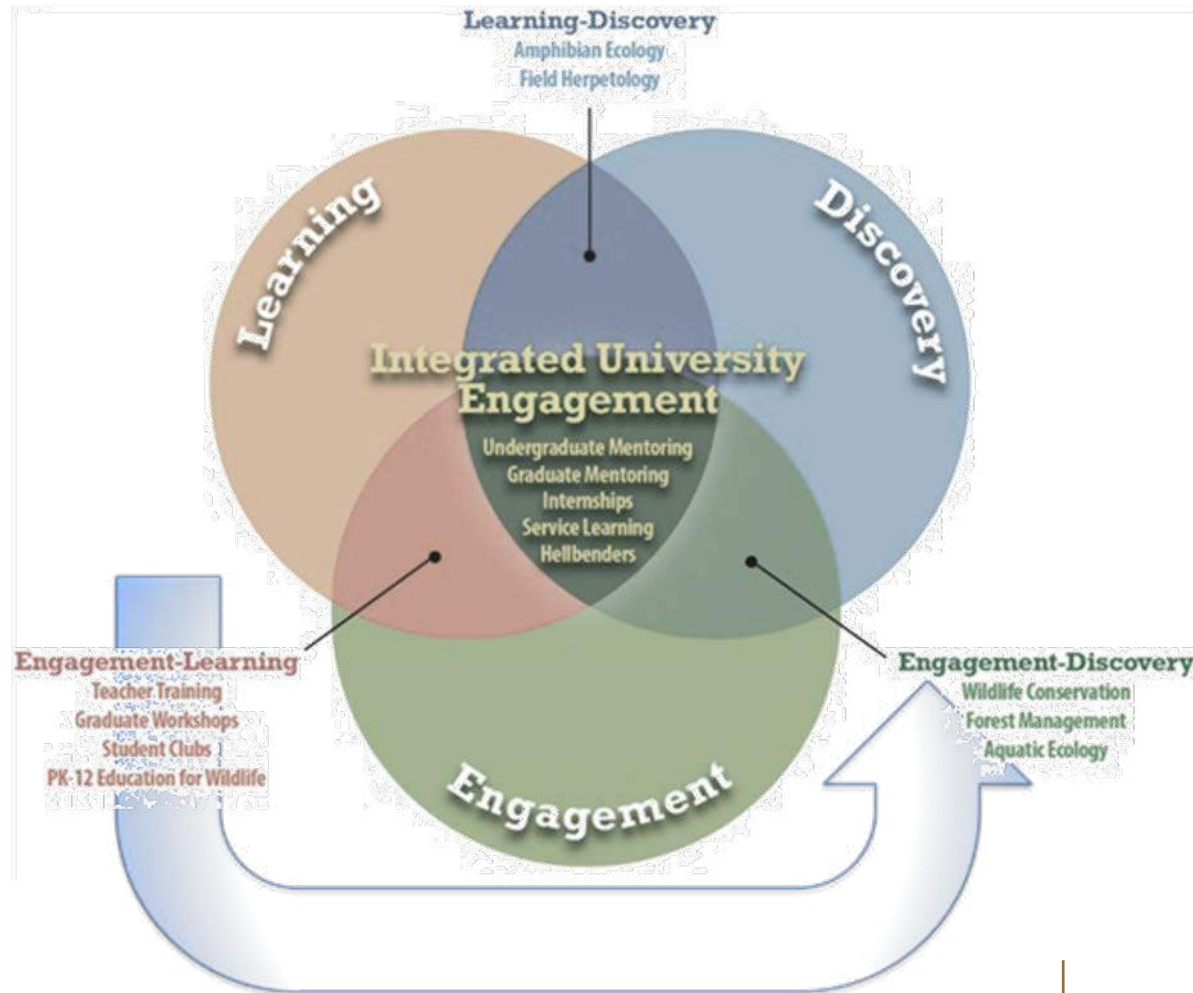
General Approach



Secondary Approach



Teaching - Engagement - Research



Teaching and Extension

Increased interest in “education” jobs

Poor communication skills

Lack of an understanding of Extension

STEM in schools



3D Model of Teaching and Extension

Develop the skills

Weeks 1-4

- Extension: history, logic model, program development, delivery

Design the program

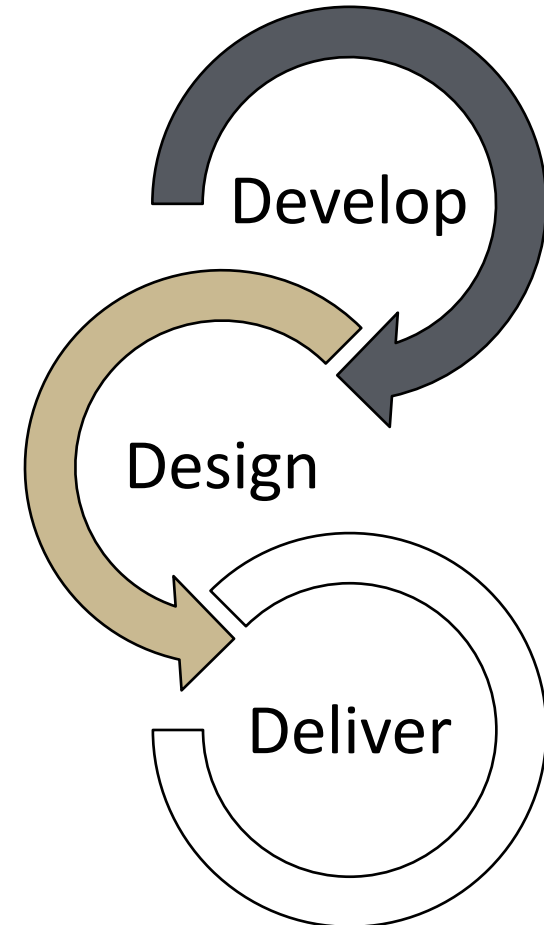
Weeks 5-8

- Develop original program

Deliver the program

Weeks 8-15

- Deliver programs



3D Model: Develop Skills

Theory

Logic Model

Audience

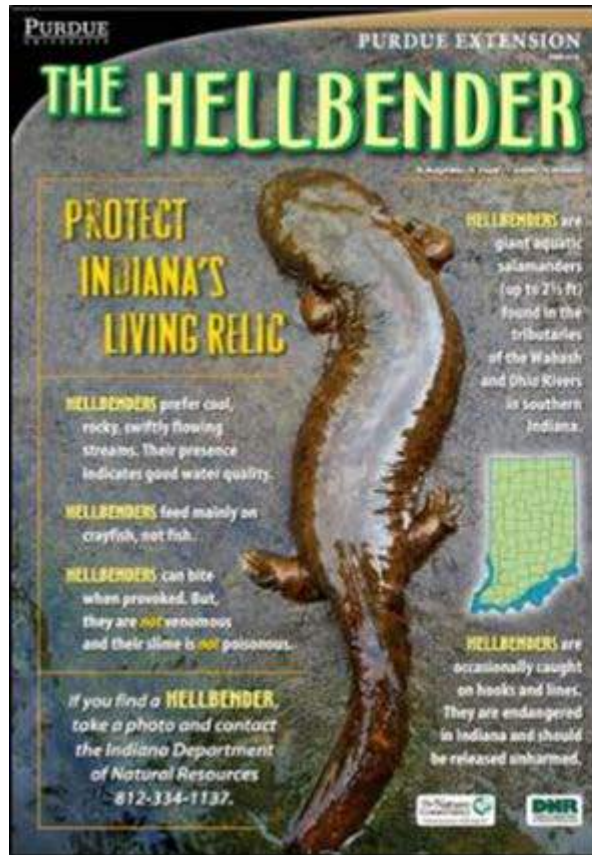
Program
Development

Practice
Delivery



3D Model: Design

General Audience



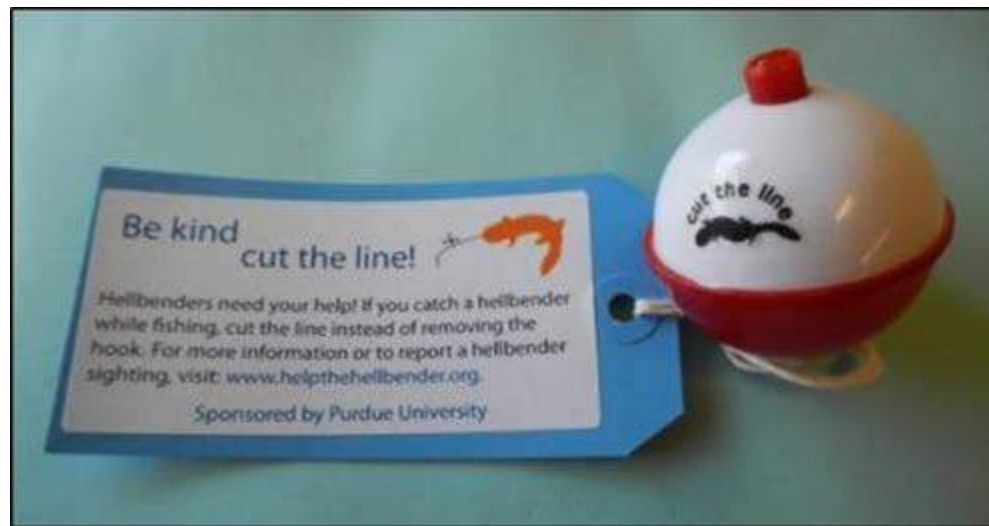
3D Model: Design

General Audience



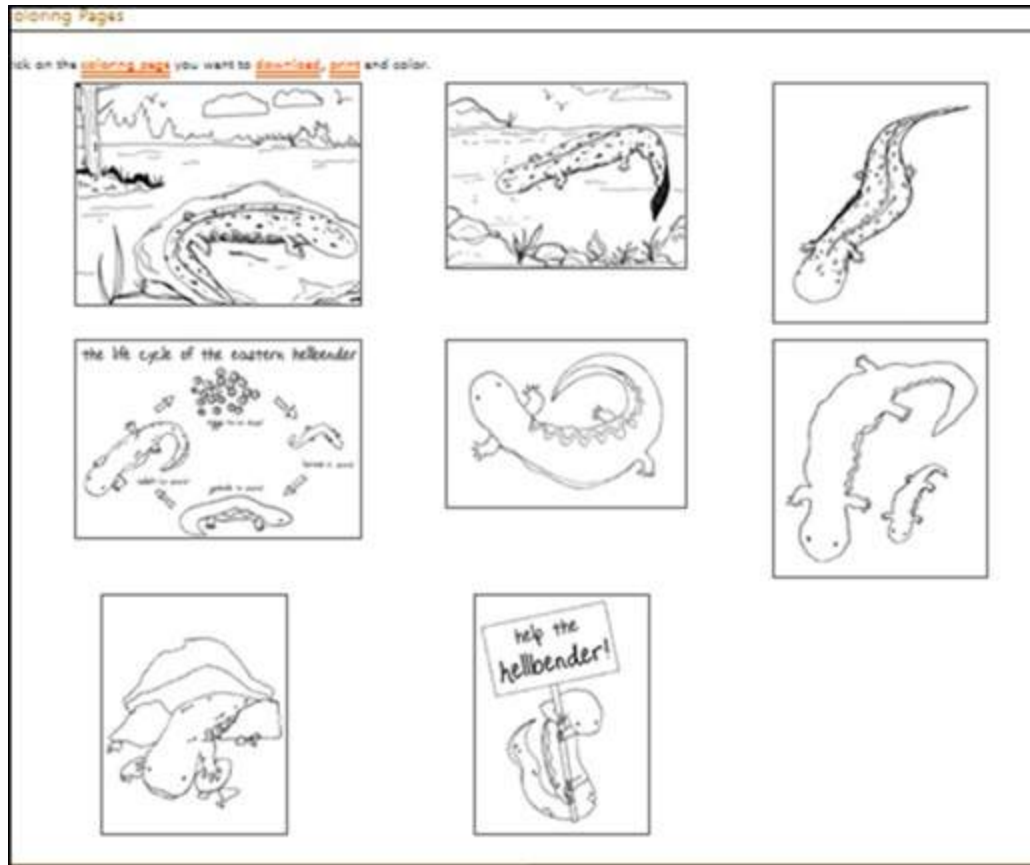
3D Model: Design

Design the content - Anglers



3D Model: Design

Design the content - Kids



3D Model: Design & Deliver

Deliver the Program- Local workshops

Feast Like a Hellbender

4 Programs targeting:

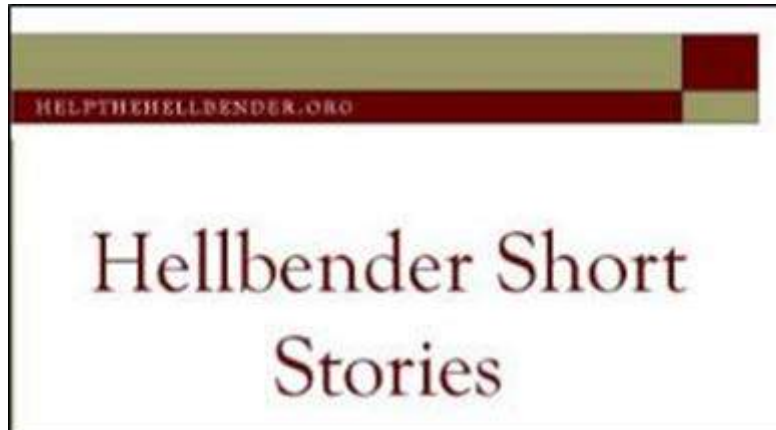
Anglers, teachers, youth, and farmers

School programs

Short stories, art, and mascot

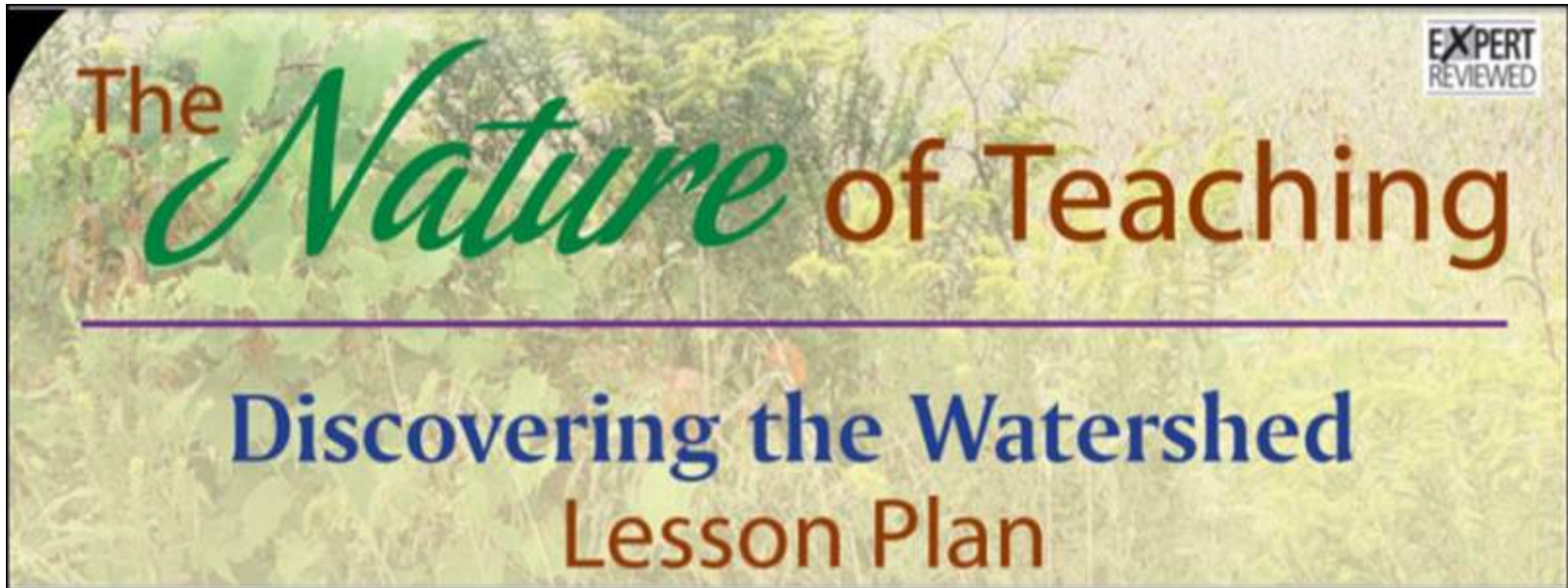
24 schools

3 counties



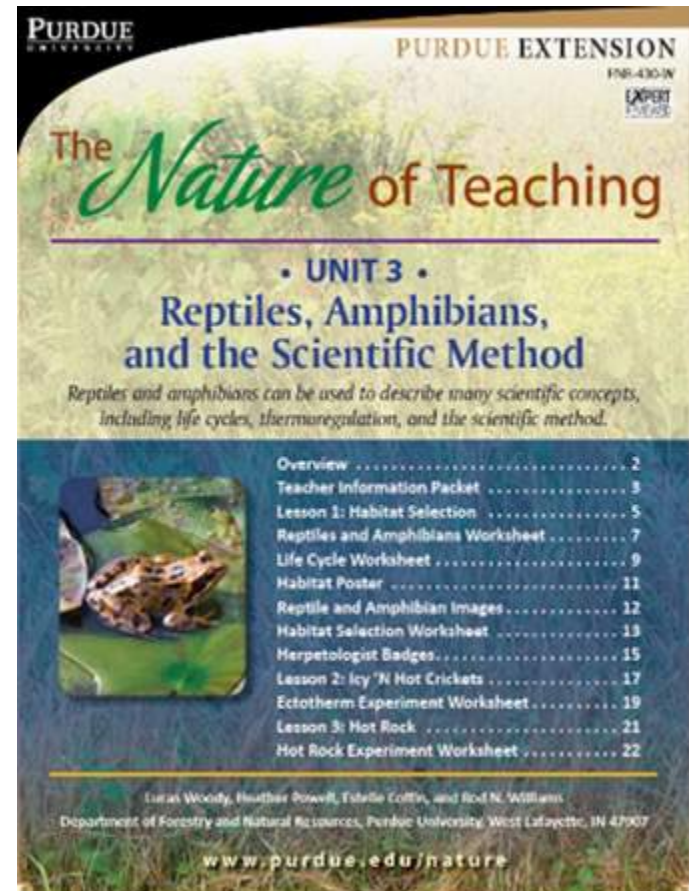
3D Model: Design & Deliver

Design the content - Teachers



3D Model: Deliver

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

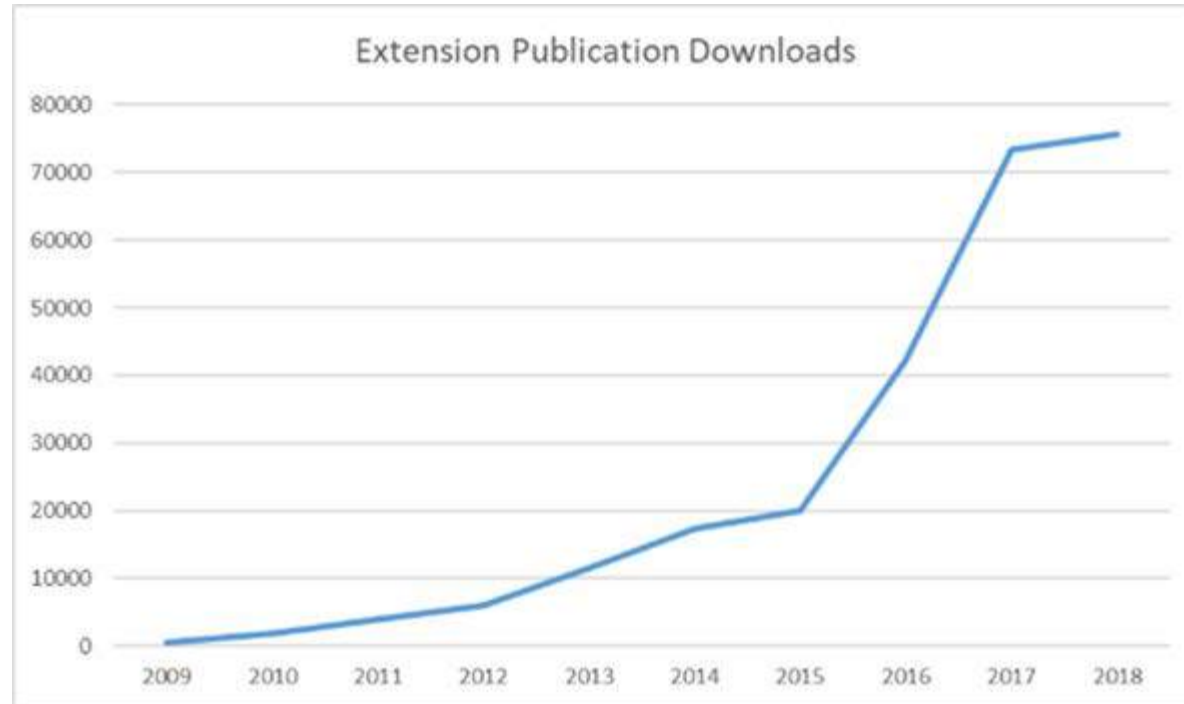


Scholarly Impact

> 80 presentations

10 workshops

13 peer-reviewed pubs



Linking Research with Extension & Teaching

Evaluating Extension Programming

- Pre- and post-surveys
- Informs future extension programming

Service Learning In Natural Resources Classes: Measuring the Impacts on University Students

Linda Stalker Prokopy¹, Rod Williams¹
and Laura Bowling²
Purdue University
West Lafayette, IN
Aaron Thompson³
University of Wisconsin
Stevens Point, WI



Animal Conservation Print ISSN 1367-9430

The impact of information and familiarity on public attitudes toward the eastern hellbender

A. Reimer, A. Mase, K. Mulvaney, N. Mullendore, R. Perry-Hill & L. Prokopy
Forestry and Natural Resources, Purdue University, West Lafayette, IN, USA

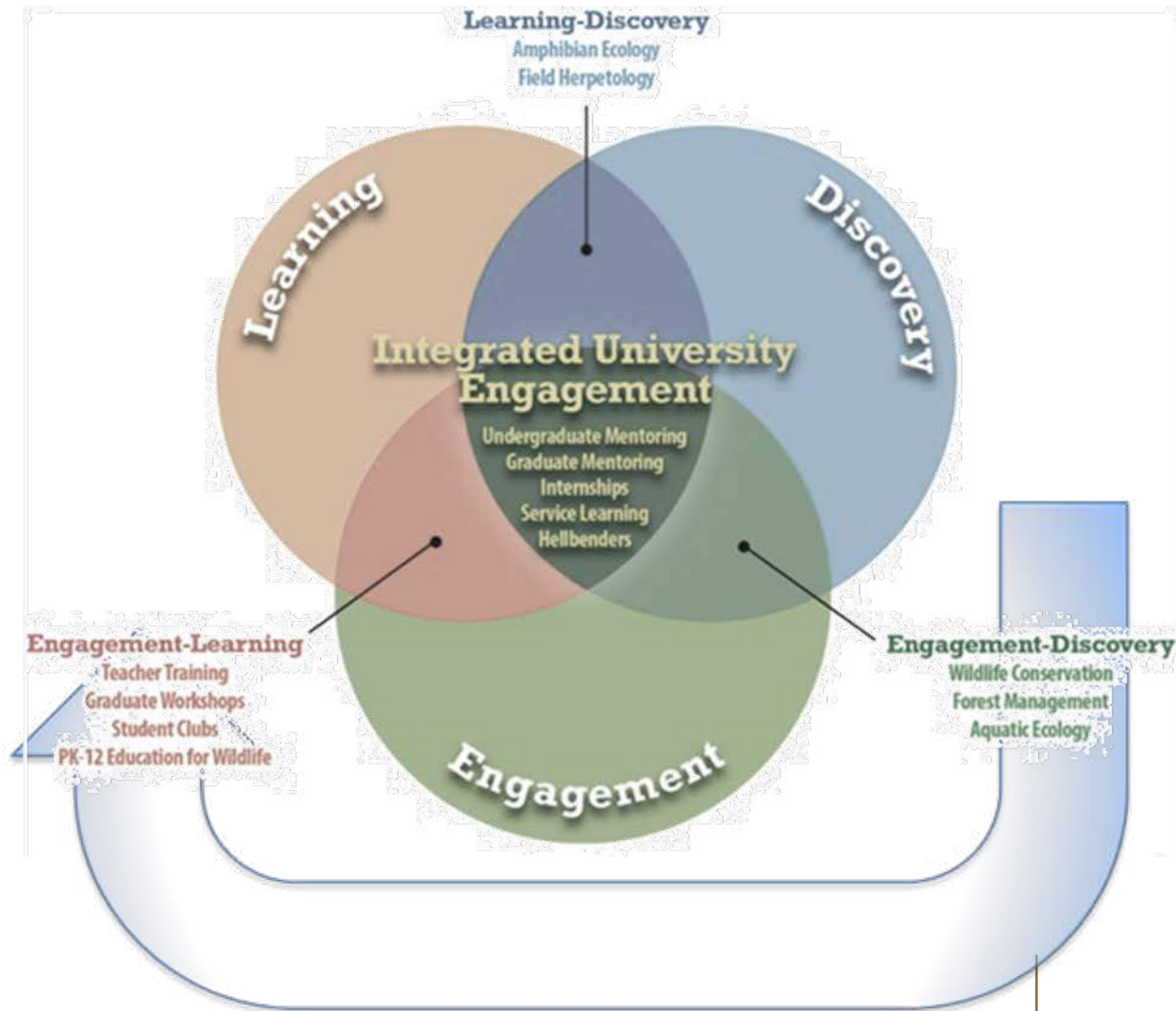
Human Dimensions of Wildlife, 19:166-178, 2014
Copyright © Taylor & Francis Group, LLC
ISSN: 1087-1209 print / 1533-158X online
DOI: 10.1080/10871209.2014.853221



Conserving the Eastern Hellbender Salamander

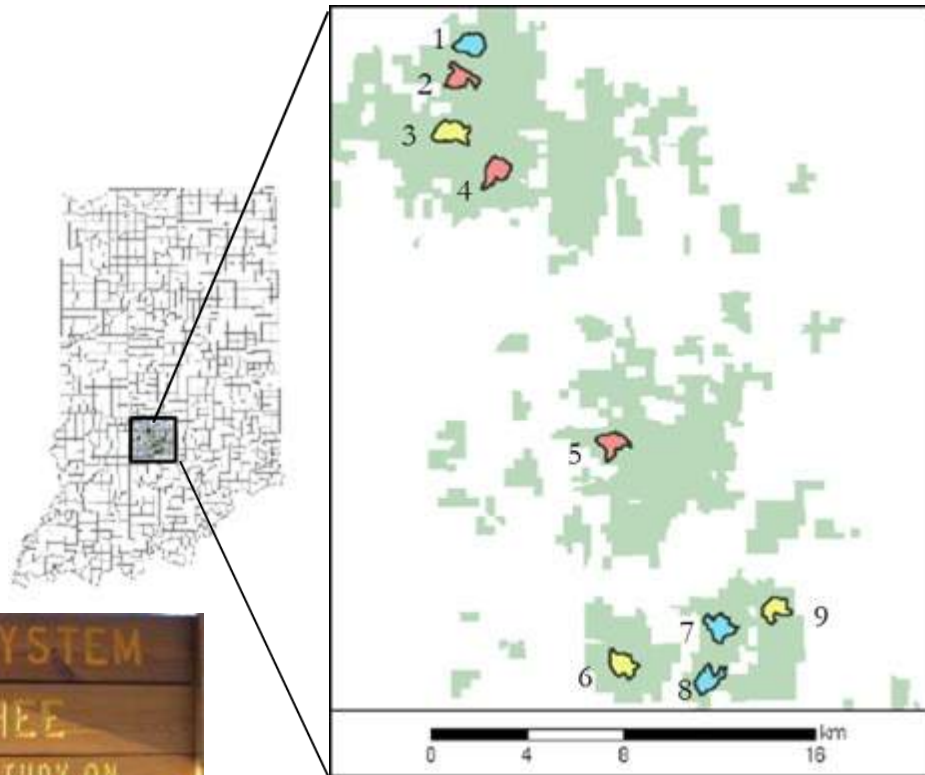
NATHAN MULLENDORE,¹ AMBER SAYLOR MASE,¹
KATE MULVANEY,¹ REBECCA PERRY-HILL,¹
ADAM REIMER,² LAMIS BEHBEHANI,³
ROD N. WILLIAMS,¹ AND LINDA STALKER PROKOPY¹

It can start with Research



Hardwood Ecosystem Experiment (HEE)

- 100-yr study
- 3 Treatments
 - Control
 - Even-aged
 - Uneven-aged
- 3 Replicates



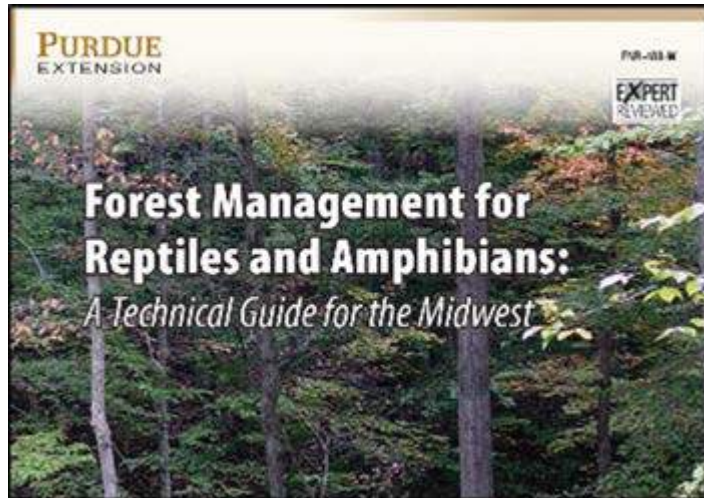
Hardwood Ecosystem Experiment



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. Hibernation 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
14. A survival estimate of Midwestern adult eastern box turtles using radio telemetry.

Ended with Extension and Teaching



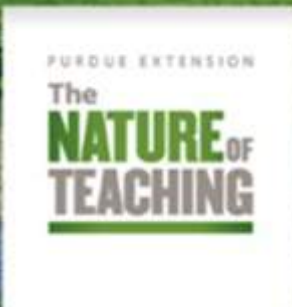
Focus Groups with K-12 educators

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



PURDUE AGRICULTURE Nature of Teaching

Home Lesson Plans+ Workshops+ Photos+ Videos+ Supporters+ Contact Us+



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.

WILDLIFE

LESSON PLANS

WORKSHOPS

FOOD WASTE

LESSON PLANS

WORKSHOPS

HEALTH & WELLNESS

LESSON PLANS

WORKSHOPS

Program Model

Formal Classes/professional development

- Nature of Teaching Mammals
- Nature of Teaching Birds
- Nature of Teaching Forest Ecology

2-Day workshops



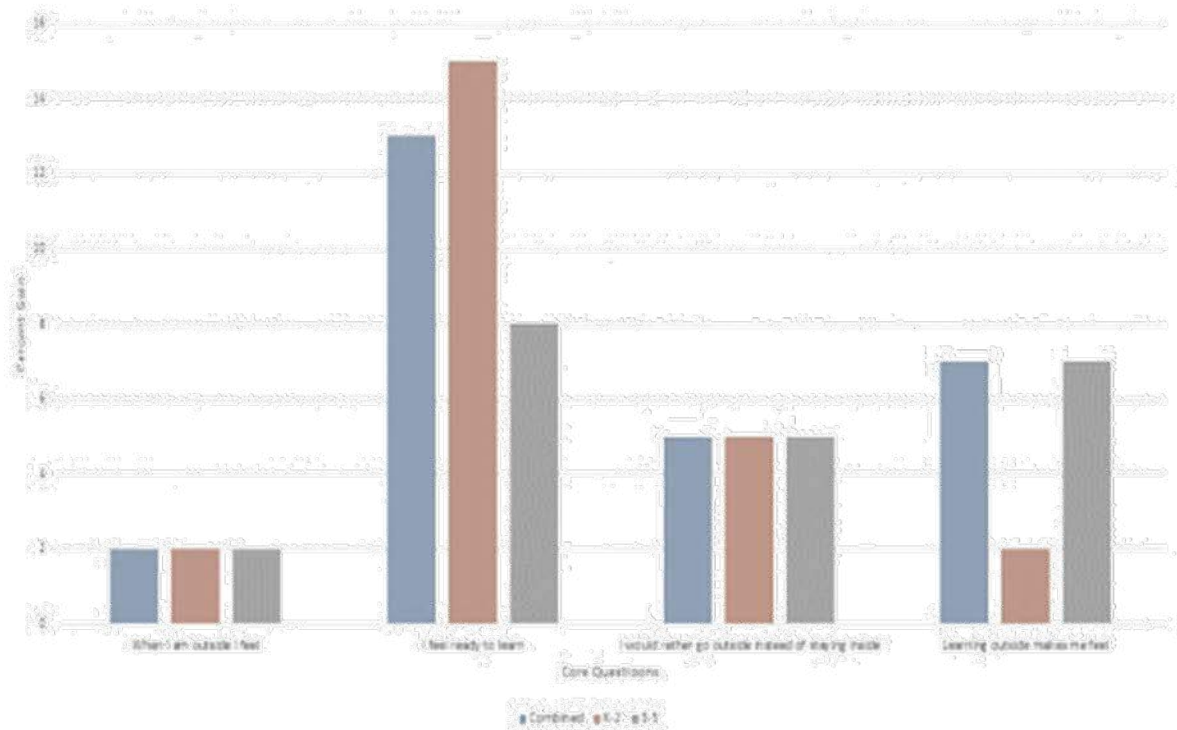
Scholarship with Impact

Impact Metrics:

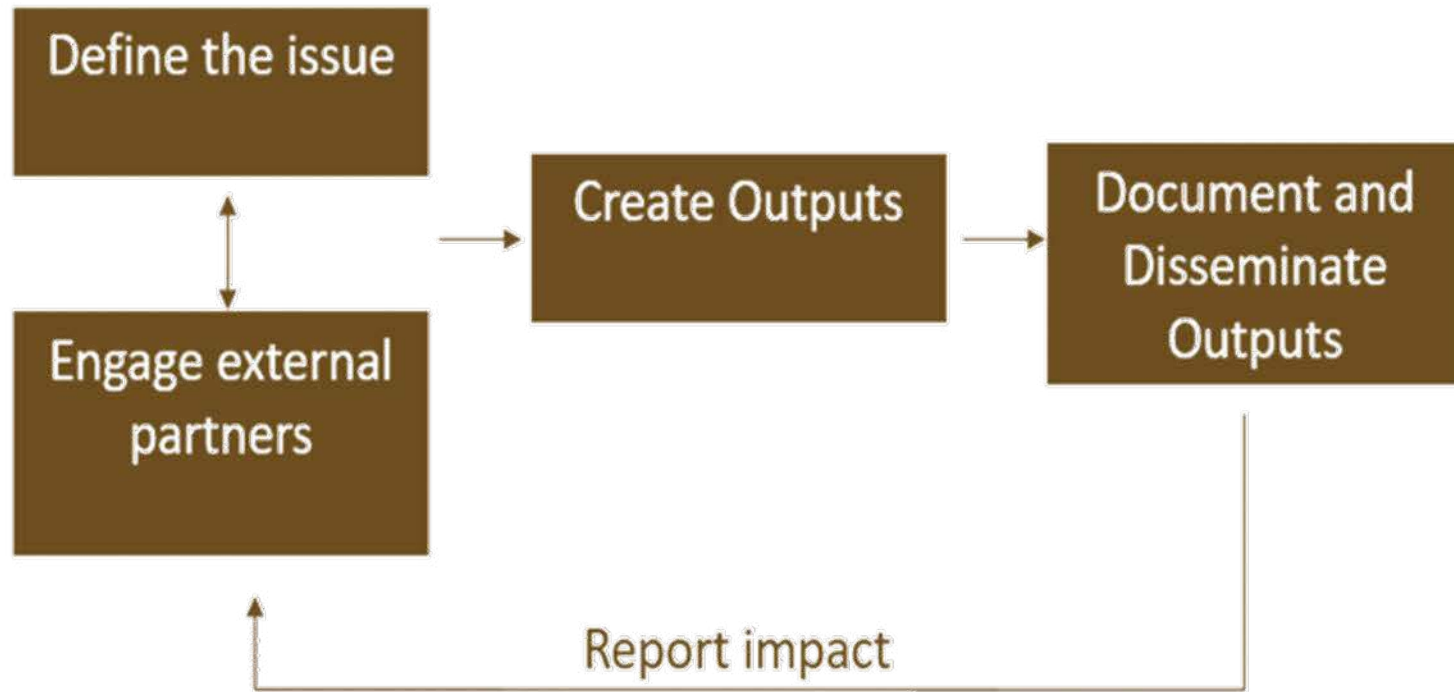
Publications
(#, downloads,
citations, etc.)

Workshops
(knowledge,
implementation,
change, etc.)

Percent Gain in Positive Attitudes



P&T Documentation



Define the Issue

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.

Engage Partners

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)

1. *Busse, B., and R.N. Williams. 2017. The Edible Issue. *In review*.
2. *Pedigo, L., M. Hunt, K. Zuber, and R.N. Williams. 2016. Health Benefits of Connecting with Nature. FNR- 539W
3. Williams, R.N., and R. Chapman. 2009. Animal Diversity and Tracking. FNR-417-W (2,150 downloads)
4. Williams, R.N., and R. Chapman. 2009. Food Webs. FNR-418-W (3,715 downloads)
5. Chapman, R., and R.N. Williams. 2009. Natural History of Indiana Mammals. FNR. 413 (36,001 downloads)
6. Williams, R.N., and R. Chapman. 2009. Becoming a Tooth Sleuth. FNR-408

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
2. Tooth Sleuth, Children's Museum of Illinois 2013
3. Tooth Sleuth, Clay County Science Day 2013
4. Tooth Sleuth, Oak Park Conservatory 2013
5. Tooth Sleuth, Explorium of Lexington 2013
6. Tooth Sleuth, Hannah Lindahl Children's Museum 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)
7. 2015 Salazar, K., and R.N. Williams. Building State-wide environmental Education programs. EEAI annual conference. Chesterton, IN
8. 2015 Bringing natural resources to K-8. Tippecanoe School Corporation Elementary Science Committee. Lafayette, IN (n=25)
9. 2011-2014 It's a Gene Thing. Purdue zipTrip. Participants: (n=35,500)
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)
12. 2014 Conservation Field Day, Snake Ecology. Tippecanoe County Parks and Water, Lafayette, IN. (n=300)
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)
16. 2013 Wildlife Tracking Workshop. Annual Conference for Indiana Master Naturalists. West Lafayette, IN

Pk-12 Natural Resources Education

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.**

Engagement Resource

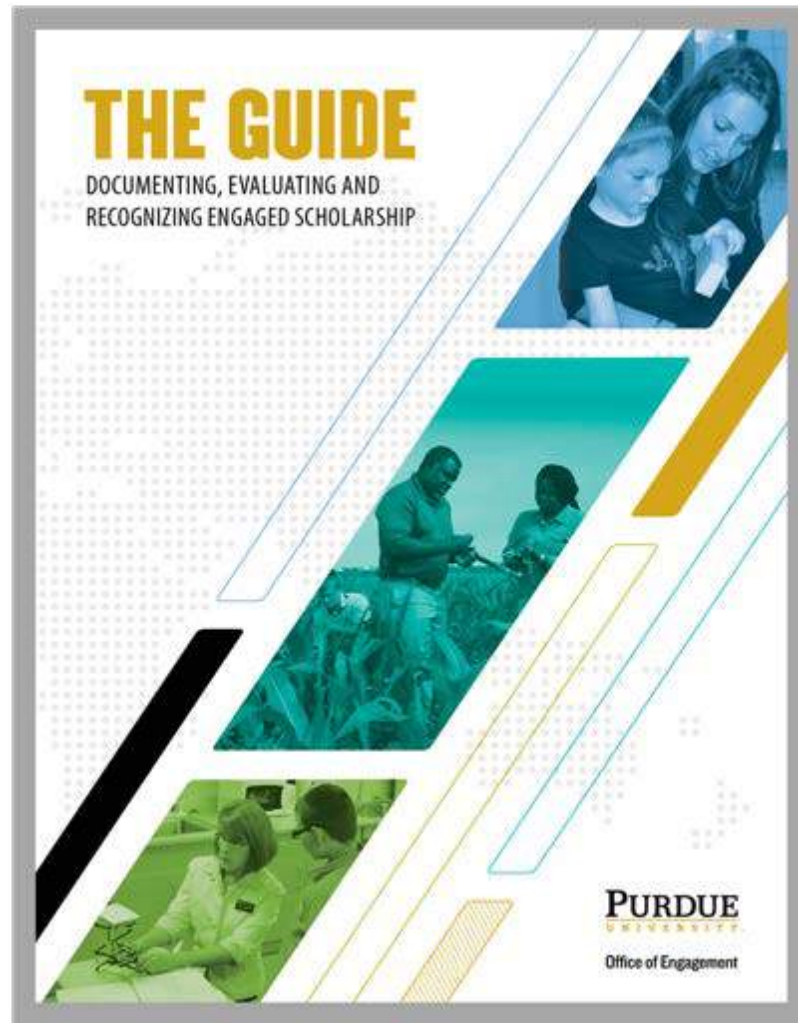


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- The Evolution of Engagement

Chapter 2

- Drafting Impactful Dossiers

Chapter 3

- Evaluating Engagement Dossiers

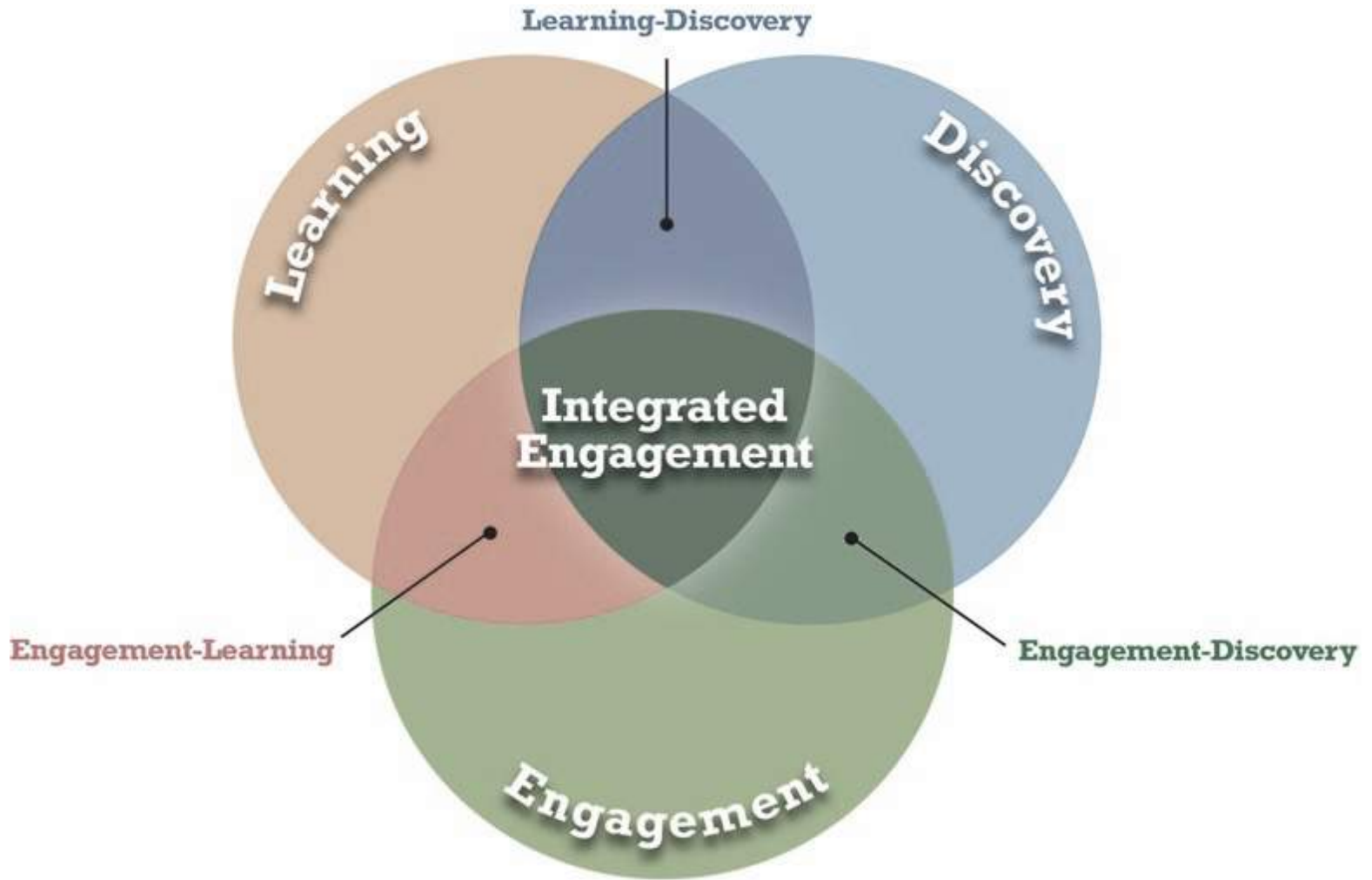
Chapter 4

- Awards and Resources

Drafting Engagement Dossiers



Framing the Dossier



Evaluating Engagement Dossiers



Evaluation Questions

EXPERTISE

How is the work viewed within the scholar's field?

INNOVATION

How does the work build upon the knowledge, research, or practice in the field?*

How does the work respond to an identified need?*

Did the work result in the development of new information, methods or approaches?*

REPLICATED

Was the methodology clear and sound?

Are results valid and reliable?

Were limitations discussed?

DOCUMENTING

How has the work been shared with colleagues?*

How has the work added to the body of knowledge?*

Where is the work accessible?*

REVIEWED

How has the scholar's work been shared: published articles, academic presentations, exhibition of work, creative performances?*

How has the scholar's work resulted in the receiving of an award, honor by peers?*

How has the scholar's work resulted in testimonials, letters of recommendation, or adaptations that affirm the value of this work?*

IMPACTFUL

What actions did the intended audience take as a result of this work?*

What measurable impacts occurred as a result of the effort (e.g., knowledge gained, information shared, behavior changed)?*

How were the developed materials or processes subsequently used by others?*

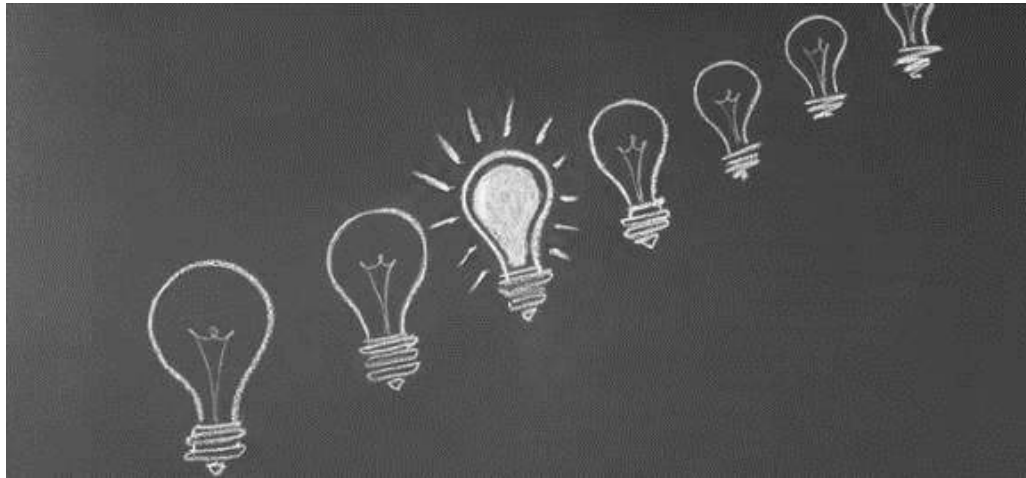
ASSESSING SCHOLARLY WORK

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