



# **THE COMMON PROBLEM PROJECT**

**PROBLEM BASED LEARNING  
WITH AN CROSS-DISCIPLINARY FOCUS**



# A COLLABORATION IN INNOVATIVE TEACHING PRACTICES



SUNY  
Cortland

SUNY  
ONEONTA

Plattsburgh  
STATE UNIVERSITY OF NEW YORK

 OSWEGO  
STATE UNIVERSITY OF NEW YORK



**Funded by:**



**2015: Teagle Foundation \$25K  
Planning Grant**



**2016: SUNY Investment &  
Performance Fund \$250K**



**2017: National Science  
Foundation \$293K. Grant # 1712227**



## **Outline of Presentation**

- 1. What is the Common Problem Pedagogy?**
- 2. What sorts of learning skills and outcomes does it hope to achieve?**
- 3. What are some of the fundamentals of problem-based learning?**
- 4. Sample projects from Oswego, Oneonta, Plattsburgh and Cortland.**
- 5. Logistics**
- 6. Resources**
- 7. Questions**

# **Common Problem Pedagogy is based on a simple idea.**


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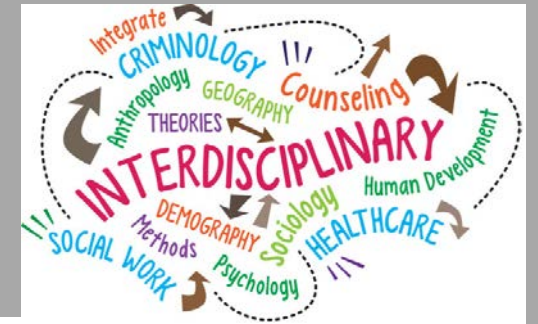
**Pair faculty from different disciplines with a community partner to address a problem of common interest**

**Pair their relevant classes to organize interdisciplinary teams of students to address the problem.**



## Characteristics of The Common Problem Pedagogy:

- **problem-based**
  - **cross-disciplinary**
  - **experiential**
  - **active learning**
  - **self-directed**
  - **civically engaged**
  - **knowledge anchored in application**
  - **student self-reflection on learning is key**
  - **learning as a process**
  - **learning in the context of teamwork and communities of inquiry**
  - **communication and oral presentation emphasized**
- 
- A collage of educational terms including GOALS, INSPIRATION, CAR, PLANNING, EXPERIENCE, LEARNING, IDEA, SUCCESS, TEAMWORK, and SOLUTION. The text is arranged in a somewhat chaotic but thematic manner, with some words in larger, bolder fonts than others. The background is a mix of blue and white, with some text appearing to be on a chalkboard or similar surface.





## **Problem Based learning is**

- **Student centered**
- **Challenging for both students and instructors**
- **Focused on ill-structured problems**
- **Less concerned about a product than the process**



# **The Common Problem Pedagogy**



## **Focus on Problem-Solving Skills**

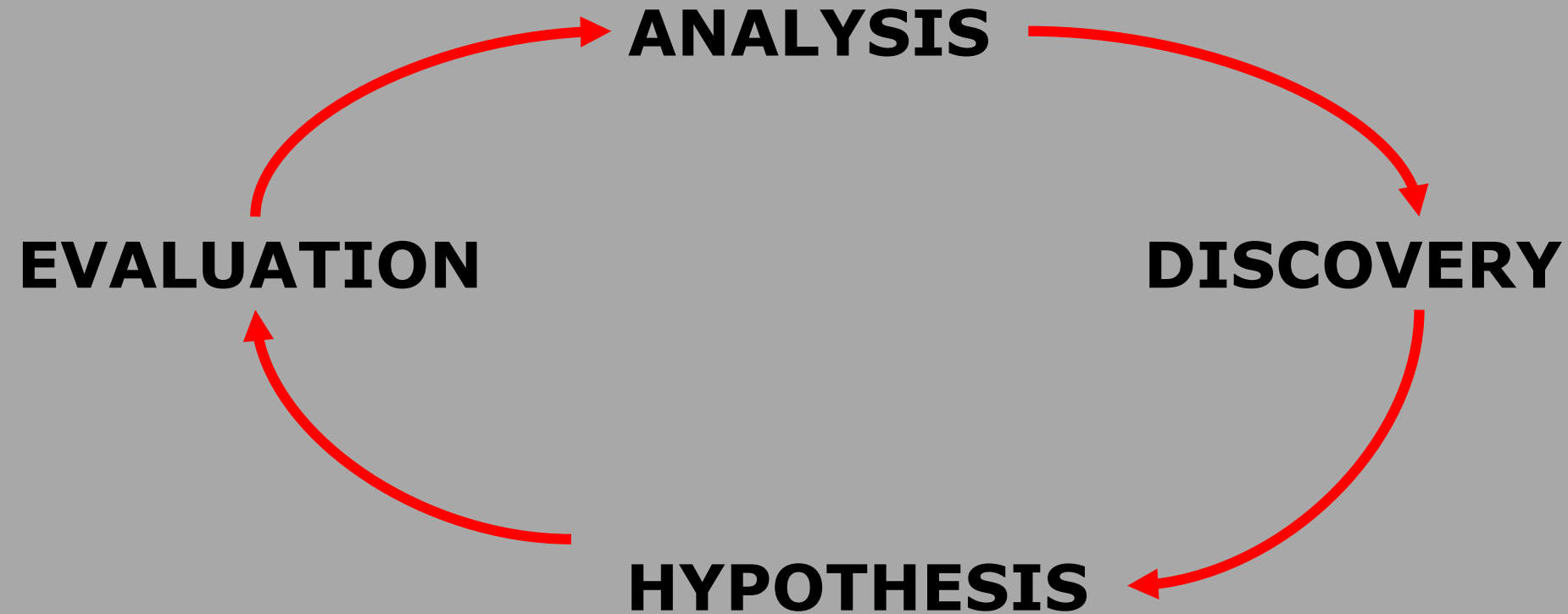
**The goal in the pedagogy is to provide minimum guidance in order that students can take ownership of the problem and struggle with the ways in which to solve it.**

**It stresses self-directed learning.**

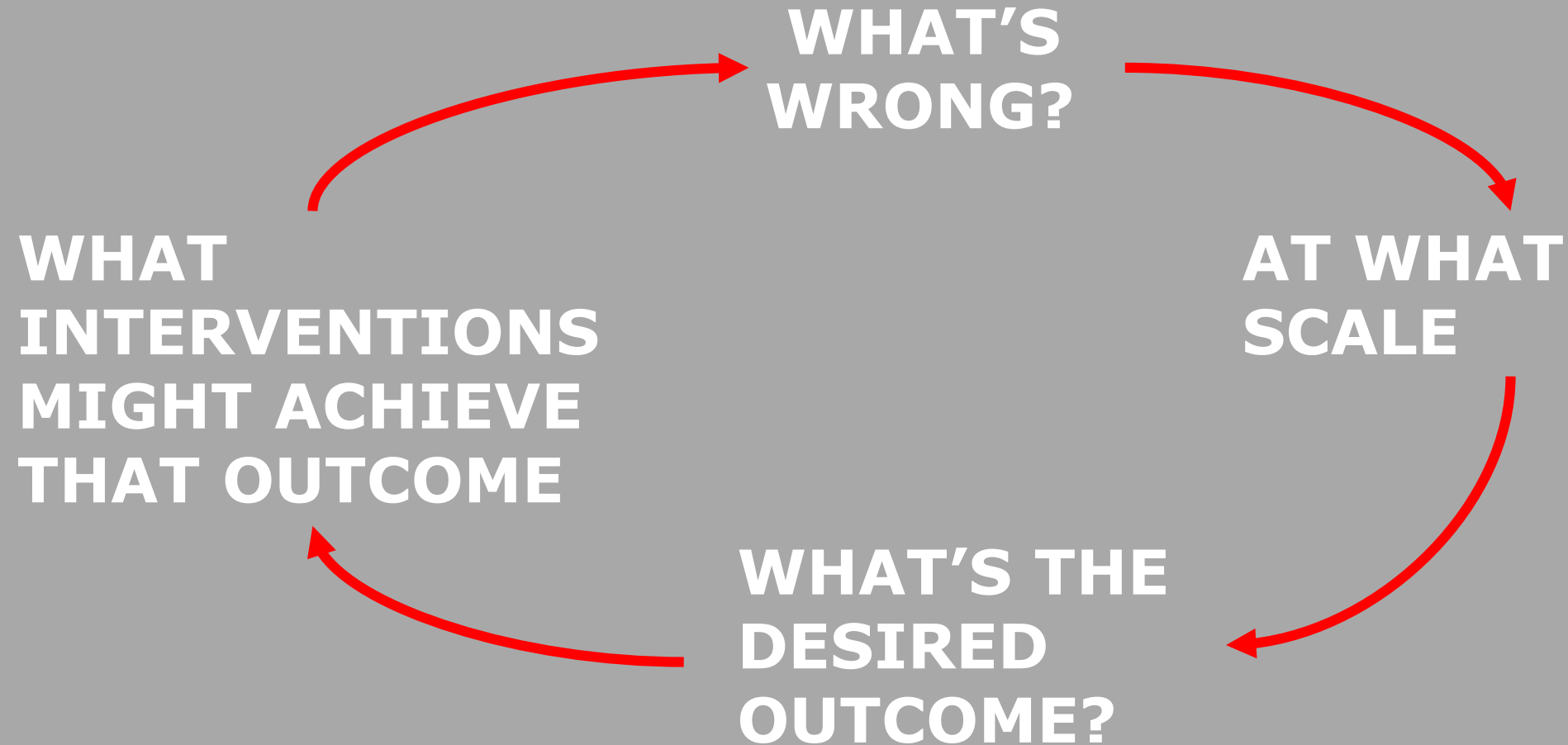


**We encourage participating faculty to provide students with a general framework for problem-solving, but let them struggle with the solution.**

# ***STEPS IN PROBLEM-SOLVING***



# STEPS IN ANALYSIS



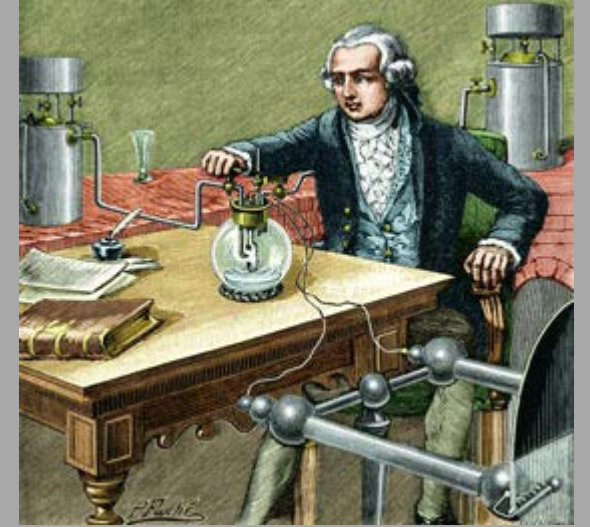
**DISCOVERY**

**GATHER  
INFORMATION**

**ORGANIZE  
RESEARCH**

**SEEK OUT  
EXPERTS**

**IDENTIFY  
RELEVANT  
RESEARCH**



# HYPOTHESIS

- **Formulate the hypothesis as an intervention;**
- **what interventions, if acted on, would most likely achieve the outcomes desired.**
- **rank alternatives**
- **select optimal solution**

The logo for 'Hypothesis' is displayed on a red square background. The word 'Hypo' is in white, and 'thesis' is in white. A yellow lightbulb icon with rays emanating from it is positioned above the 'i' in 'thesis'.

# **Evaluation**

- **Can the solution be field tested?**
- **What was the opinion of instructor, experts, other groups, community partner?**



**“In PBL, students learn content, strategies, and self-directed learning skills through collaboratively solving problems, reflecting on their own experiences, and engaging in self-directed inquiry.”**

**Cindy Hmelo-Silver**



**The pedagogy is meaningful to the students because the problems chosen are real, and relevant—a powerful motivating force for learning.**



**Additionally, in being engaged with students outside of their own discipline, they can often gain new insight into problems by employing different disciplinary concepts and frameworks.**

# **Oneonta students reflect on their Common Problem experience:**

<https://cloud.swivl.com/v/0ac96c743ad7d276604e37f05ea18aff>



## **Two Student Learning Outcomes for each participating class:**

- **Identify scope of ill-structured problem, determine its causes, and construct and assess possible solutions.**
- **Incorporate insights of other disciplines in constructing meaningful solutions to problems.**

# **THE SMART NEIGHBORS PROJECT AND PROGENY**

**Four Years of Promoting the City  
of Oswego's Businesses and  
Not-for-Profits**

# The Smart Neighbors Project

The Smart Neighbors Project is an ongoing collaborative and multidisciplinary effort between classrooms at SUNY Oswego and local independent businesses. Students apply their knowledge and skills to the promotion of a downtown business, producing digital essays, documentaries, banners and posters, jingles, promotional objects and decorative items—all for the purpose of contributing to the success of downtown. Smart Neighbors work together. Smart Neighbors share successes.



## MAN IN THE MOON CANDY STORE

### ‘17-’18 PROJECT



#### 2017 Smart Neighbor: Man in the Moon Candies

In 2017 Man in the Moon Candies was the Smart Neighbors business. Students from Cinema & Screen studies, creative writing, marketing, photography, sculpture, and sociology classes participated in the promotional efforts.

ART 246/345 Sculpture I & 2



Student sculptures were featured in a book of candy, about their journey to place, specifically the city of Oswego, New York, including their history with marketing and writing. Students created models for candy or for chocolate in their investigation of local history and geography. Many of the models were graciously donated to the sculpture to the project and to Man in the Moon Candies, including chocolate sculptures of Man in the Moon Candies (Macy Walters) as well as chocolate sculptures of the city of Oswego.

ART 443 Digital Photography



Photographers collected multiple photographs of Man in the Moon Candies, providing all of the contributing classes with high quality digital photographs that ultimately appeared in the final project. By sharing across the spectrum of the project, digital study, marketing, photography, film, and project files, these resources, photographs appeared on a site of sharing between the business and the school.

CRW 355 Literary Citizenship



Creative writers in the Literary Citizenship course investigated the relationship between creativity and citizenship, important aspects of professionalism in their practice. Through the sharing of writing communities and writing literary review, and engage it via local literary events both local and national. For the Smart Neighbors Project, creative in Literary Citizenship moved their creative creativity—writing skills into the context of sophisticated and opening digital essays for Man in the Moon Candies.

CRW 405 Advanced Poetry



Advanced Poetry Writing students created creative writing. Focusing on poetry at Oswego, in this class, each student writer and contribute a themed chapter in short book, study 2010 project of their original poetry. The Smart Neighbors Project created an opportunity to use the same creative skills needed for their final all class project in a creative writing setting.

CSS 405 Experimental Filmmaking



Investigating in the film class as a reflection method of learning, student filmmaker joined the boundaries of their own notions of creating powerful film. For the Smart Neighbors Project, filmmaker integrated the multi-media visual and understanding themes of Man in the Moon Candies, creating original multimedia in motion pictures.

MBA 315 Marketing Management



In this course graduate students conducted a regional market of market conditions in Oswego, New York in context for the development and presentation of a marketing plan for Man in the Moon Candies. The class broke into five groups, each of which came up with unique and highly researched marketing plans for the business owner, many of the plans included the relationship between the city of Oswego and the 2017 Oswego campaign.

SOC/WG Race, Class, Ethnicity, Gender



The course introduces students to social inequalities within American society, and provides students with the theoretical tools to examine the critical power relationship within American culture. For the Smart Neighbors Project, students, as critical common problems, they learned how to the inequalities and other business that in Oswego, defining how Oswego can create, build, and work on help solve those problems.

#### Faculty Mentors

for the 2017 Smart Neighbors Project

Assistant Professor Evelyn Benavides, Sociology of Race, Class, Gender

Associate Professor Jacob Dodd, Experimental Filmmaking

Assistant Professor Laura Donnelly, Advanced Poetry

Assistant Professor Benjamin Entner, Sculpture I and II

Associate Professor Julie Jubin, Digital Photography

Associate Professor Efsthios Kefallonitis, Marketing Management

Associate Professor Donna Steiner, Literary Citizenship







## 2017 Smart Neighbor: Man in the Moon Candies

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# Participating Classes

## MBA 515 Marketing Management



In this course graduate students conducted a rigorous analysis of market conditions in Oswego, New York as context for the development and presentation of a marketing plan for Man in the Moon Candies. The class broke into five groups, each of which came up with unique and highly researched marketing plans for the business owner, many of the plans bridging the relationship between the city of Oswego and the SUNY Oswego campus.

## SOC/WS

### Race, Class, Ethnicity, Gender



This course introduces students to social inequalities within American society, and provides students with the theoretical tools to examine and critique power relationships within American culture. For the Smart Neighbors Project students identified common problems they believe Man in the Moon Candies and other businesses face in Oswego, defining how Oswego State students, faculty and staff can help solve those problems.



# Participating Classes

## CRW 355 Literary Citizenship



Creative writers in the Literary Citizenship course investigate the relationship between creativity and professionalism, implement aspects of professionalism into practice through the fostering of writing communities and writing literary reviews, and engage in various literary arenas both local and national. For the Smart Neighbors Project, students in Literary Citizenship moved their considerable creativity + writing skills into the creation of sophisticated and appealing digital essays for Man in the Moon Candies.

## CRW 405 Advanced Poetry



Advanced Poetry Writing is the capstone course for creative writers focusing on poetry at Oswego. In this class, each student writes and constructs a themed chapbook (a short book, usually 15-30 pages) of their original poetry. The Smart Neighbors Project gave students an opportunity to use the same creative skills needed for their individual chapbooks in a collaborative setting.

## CSS 485 Experimental Filmmaking



Investigating avante garde cinema as an alternative method of filmmaking, student filmmakers pushed the boundaries of their own notions of creating powerful films. For the Smart Neighbors Project filmmakers interpreted the multi-faceted visuals and candy-making themes of Man in the Moon Candies, creating delightful "confections" in motion pictures.



## ART 245/345 Sculpture 1 & 2



Student sculptors were invited to think critically about ideas inherent to place, specifically the city of Oswego, New York, in honing their facility with mold-making and casting. Students created molds for soap or for chocolate in their investigation of local history and geographies. Many of the molds were generously donated by the sculptors to the project and to Man in the Moon Candies, including chocolate silhouettes of famous Oswegonians (Mary Walker), as well as chocolate/gold pearl dust interpretations of the lake waters at sunset.

## ART 443 Digital Photography



Photographers conducted multiple photo shoots at Man in the Moon Candies, providing all of the collaborating classes with high quality digital photographs that ultimately appeared in the final projects by students across the spectrum of the project: digital essays, marketing plans, experimental films, and project flyers. These students' photographs appeared on a series of striking banners that became the iconic "look" of this year's project.

# SMART NEIGHBORS: MAN IN THE MOON CANDIES Participating Classes

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# DOWNTOWN BANNER PROJECT



**Supporting Our Community One Block at a Time**

The Smart Neighbors Project

Product of SUNY Oswego Creativity Lab  
+ SUNY Performance & Shineman Grants



# STUDENT WORK IS PLACED ON DIGITAL OZ A WEB SITE PROMOTED BY THE OFFICE OF COMMUNICATIONS AND MARKETING AT SUNY OSWEGO



## MBA 514 Marketing Management



In this marketing course graduate students conducted a rigorous analysis of market conditions in Oswego County, New York as context for the development and presentation of a marketing plan for the Oswego-Fulton Farmers Market.

[Read more](#)

## CSS 485 Experimental Filmmaking



Investigating avant garde cinema as an alternative method of filmmaking, student filmmakers pushed the boundaries of their own notions of creating powerful films.

[Read more](#)

## CRW 405 Advanced Poetry



The advanced poetry course saw their participation in the Smart Neighbors project as a way to forge



# THE GRAND CHALLENGES PROJECT

## The Grand Challenges Project: Fresh Water for All



*Together* we can delve into the investigation of problematic global issues; we can confront social injustices and inequalities; we can promote multidisciplinary learning and knowledge to advance the common good; and we can contribute at the highest levels of theory and application to "...finding solutions to the grand challenges of our times."

— *Tomorrow: Strategic Plan*



### Fresh Water for All: Fall 2018-Spring 2020 Grand Challenge

From the immensity of Lake Ontario to our north, the Oswego River to our east, the wetlands to our west, and the lakes and streams to our south, the SUNY Oswego neighborhood is surrounded and defined by fresh water.

In fact, there is an abundance of water on our planet. And yet the lack of fresh water is responsible for more deaths in the world than war is.

Fresh water issues include freedom of access, industrial and agricultural usage, pollution and contamination, sanitation and drought, as well as the fresh water needed for important ecological processes tangential to human use, but critical to our sustainability as a planet.



### Faculty Participation in Fresh Water for All

Faculty are invited to tackle topics through readings and assignments in your courses, through connecting your students to performances and speakers across disciplines, and through creating opportunities for your students to present on fresh water topics in library-sponsored student events and during Quest. Need some resources to inspire you, or to assign as student readings? Check out the Perfield Library Fresh Water Resources, a guide to books, articles, movies and more related to fresh water.

Micro-grants will be given for creative uses of the Fresh Water Grand Challenge in the classroom — especially for interdisciplinary work such as team-teaching or shared assignment-making across discipline, civic engagement projects that tackle local fresh water challenges through the classroom, volunteerism, or applied learning projects.



### Student Work

Solutions to Grand Challenges come together in a variety of ways — from scholarly research and essays to artistic interpretations and media coverage to how and what we teach in our schools. Our students' work is crucial to the success of the Fresh Water Grand Challenge.

### Contact

Leigh Allison Wilson  
Chair of the Grand Challenges Oversight Committee  
[leigh.wilson@oswego.edu](mailto:leigh.wilson@oswego.edu)



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# **OSWEGO'S SMART NEIGHBORS PROJECT**

**“As students, this project helps us step out of our comfort zones. We forget that a huge part of why we’re here is networking and getting out into the community. This project gives us the confidence to do that.” —student Emily Shaben**

## **Courses involved:**

- **Creative writing**
- **Film-making**
- **Art**
- **Marketing**
- Sculpture**

**SUNY  
ONEONTA**

**Sustainable Focus**

# LOCAL SCHOOL AS PILOT PARTNER







# LONGEVITY IMPACT

2015 Pilot to now



SUNY  
ONEONTA

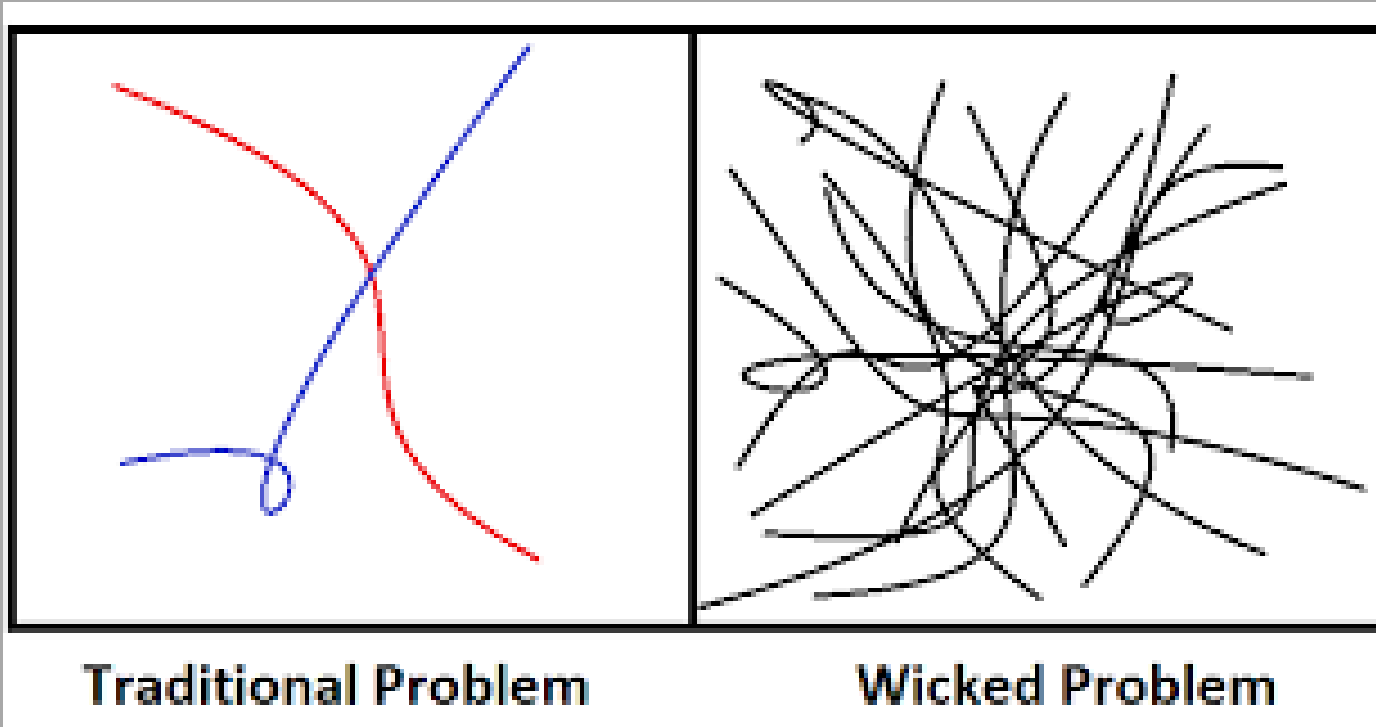
SUSTAINABLE SUSQUEHANNA  
AND PBL IN ACTION

PROBLEM BASED  
LEARNING  

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A STUDENT PERSPECTIVE

## WHAT WE LEARNED







## **PLATTSBURGH'S FILM AND SUSTAINABILITY PROJECT**



**Dr. Curt Gervich and Dr. Mike Devine**

**Working with community members to produce films on local sustainability issues**

**Courses involved:**

- **English (Film)**
- **Environmental Sciences**

## PLATTSBURGH'S FILM AND SUSTAINABILITY PROJECT



**Nathan Winans**  
co-director of  
*Power*

**“I learned how hidden poverty can be”**

**The student film *Power*, about homelessness, was shown in the 2017 Lake Champlain International Film Festival, and considered for the Lake Placid Film Festival.**

**[POWER \(1\).mp4](#)**

***A Day in the Life* explores the hidden economic links between student waste and the impoverished who recycle it.**

## **CORTLAND'S MIGRATION IN THE CORTLAND COMMUNITY**



**Students in the Migrations group  
during one of their collaborative  
meeting sessions**

**The project considered ways to better  
integrate refugees into the community. How  
best to meet the needs of the new migrants  
and to address concerns and misconceptions  
by local residents about the refugees .**

**Courses involved:**

- **Childhood Education**
- **History**
- **Political Science**



## **LOGISTICS: IDENTIFYING FACULTY PARTNERS**

**offer informational sessions that bring faculty together to discuss their interests and find matches;**

- **use existing courses;**
- **try to schedule courses at the same time;**





## **LOGISTICS: DESIGN OF THE CLASSES**

- **the common problem project should not interfere with delivery of course content;**
- **many faculty set aside time during the last 3 or 4 weeks of class for students to work on the project.**



## **LOGISTICS: COMMUNITY PARTNER**

- **have the community partner make a presentation to the class on the problem, if practical**
- **have the community partner attend any presentations of the students solutions to the problem;**



## **LOGISTICS: ORGANIZING STUDENT TEAMS**

- **5-6 members are best;**
- **the most difficult issue is organizing times when students can meet;**
- **some instructors set up in-class times for students to meet as teams;**
- **discuss the issues of team dynamics with students ahead of time so they are aware of typical teamwork problems.**

## **LOGISTICS: GRADING**



- **Rubrics are available for problem-solving, oral presentation, civic engagement, teamwork.**
- **highly recommended to require student reflection paper, include reflection on:**
  - 1. problem-solving skills learned;**
  - 2. working with group;**
  - 3. working with students from other disciplines;**
  - 4. working with community partner;**
  - 5. incorporation of course concepts and theories in solving the problem.**





## **SUPPORT AVAILABLE**

**We offer Webinars on the Pedagogy through the Center for Teaching Excellence at SUNY Plattsburgh. Contact Becky Kasper, Director [Kasperrb@Plattsburgh.edu](mailto:Kasperrb@Plattsburgh.edu)**

**we can, on a limited basis, provide on-site workshops or informational session for your faculty, based on available funding.**

**Contact: James Liszka [James.Liszka@Plattsburgh.edu](mailto:James.Liszka@Plattsburgh.edu)**



**For more information on the Common Problem  
Problem contact:**

**James Liskka:**

[James.Liskka@Plattsburgh.edu](mailto:James.Liskka@Plattsburgh.edu)

**Becky Kasper**

[Kasperrb@Plattsburgh.edu](mailto:Kasperrb@Plattsburgh.edu)

