



THE COMMON PROBLEM PROJECT

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



A COLLABORATION IN INNOVATIVE TEACHING PRACTICES



Cortland
SUNY

SUNY
ONEONTA

Plattsburgh
STATE UNIVERSITY OF NEW YORK

The SUNY Oswego logo, featuring a white silhouette of a building with a tower and a spire to the left of the word 'OSWEGO' in a large, white, sans-serif font. Below 'OSWEGO' is the text 'STATE UNIVERSITY OF NEW YORK' in a smaller, white, sans-serif font.



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.

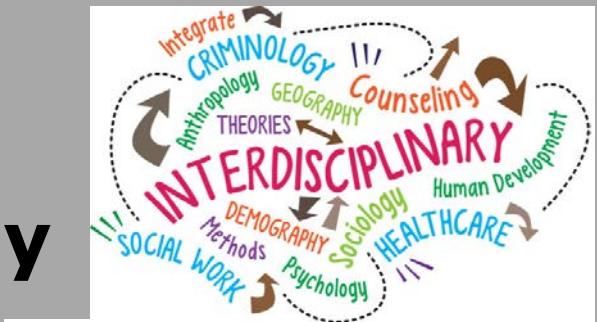
Pair faculty from different disciplines with a community partner to address a problem of common interest

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**





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



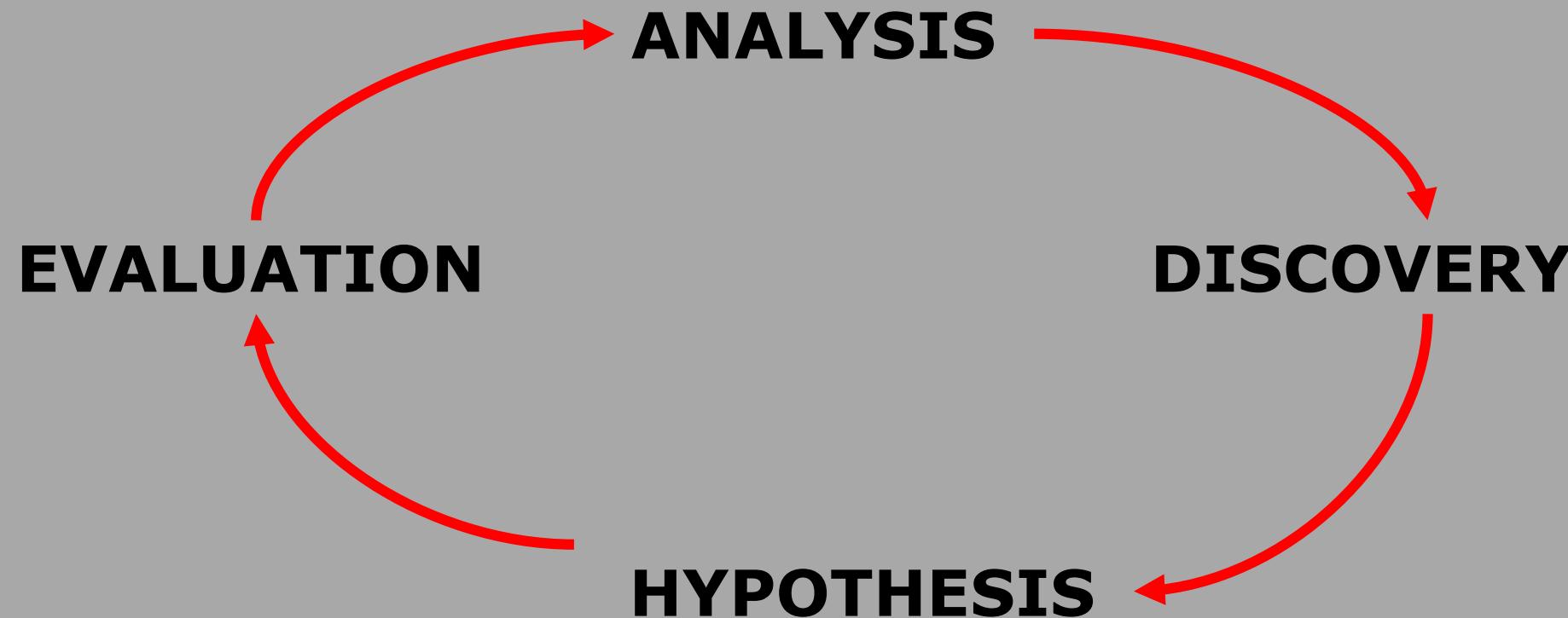
Focus on Problem-Solving Skills

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.

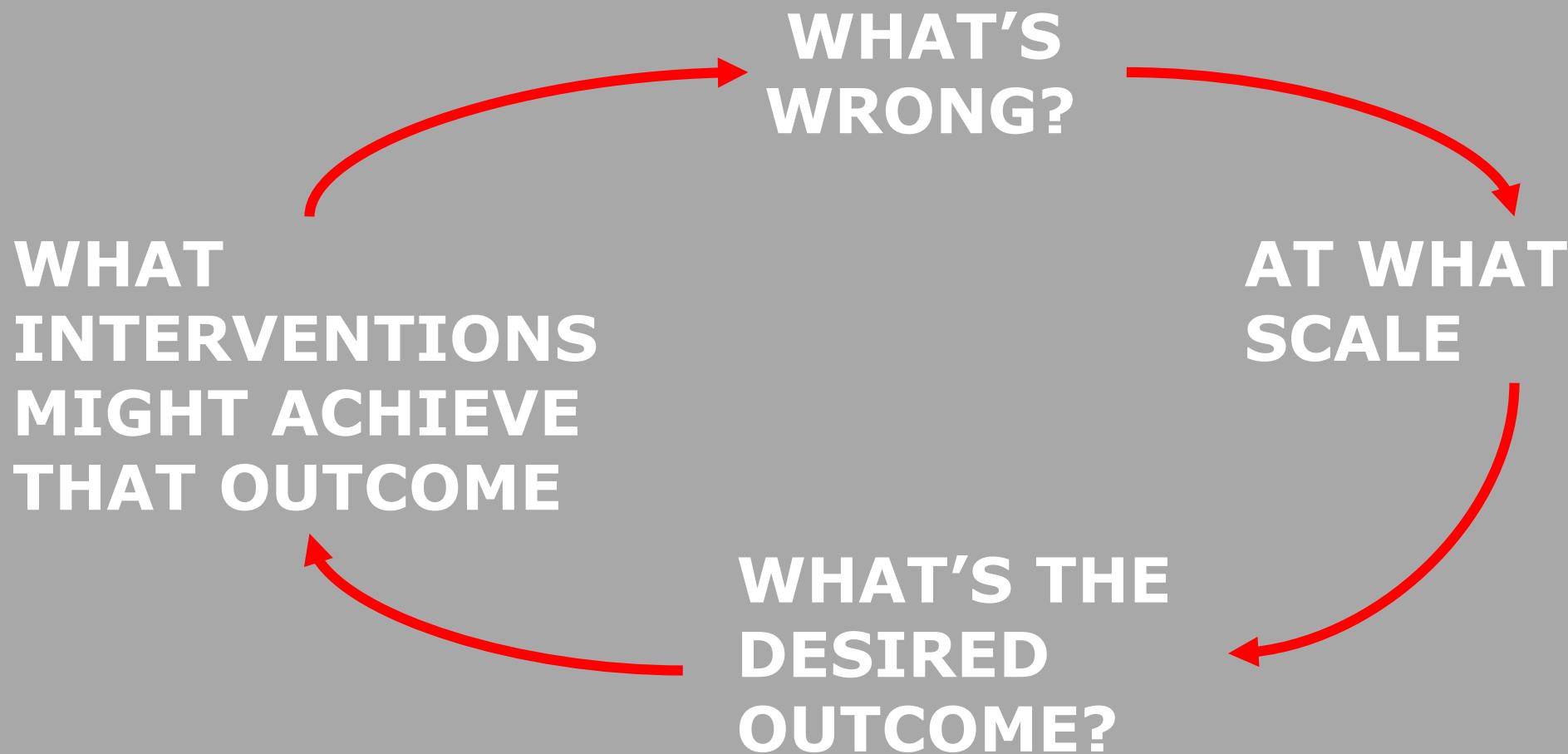
It stresses self-directed learning.

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

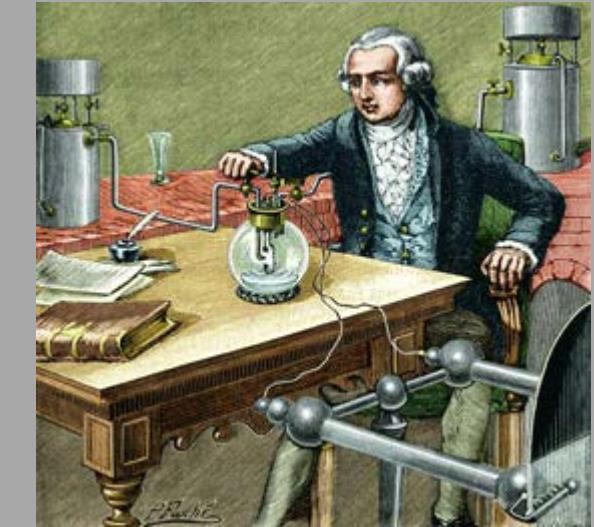
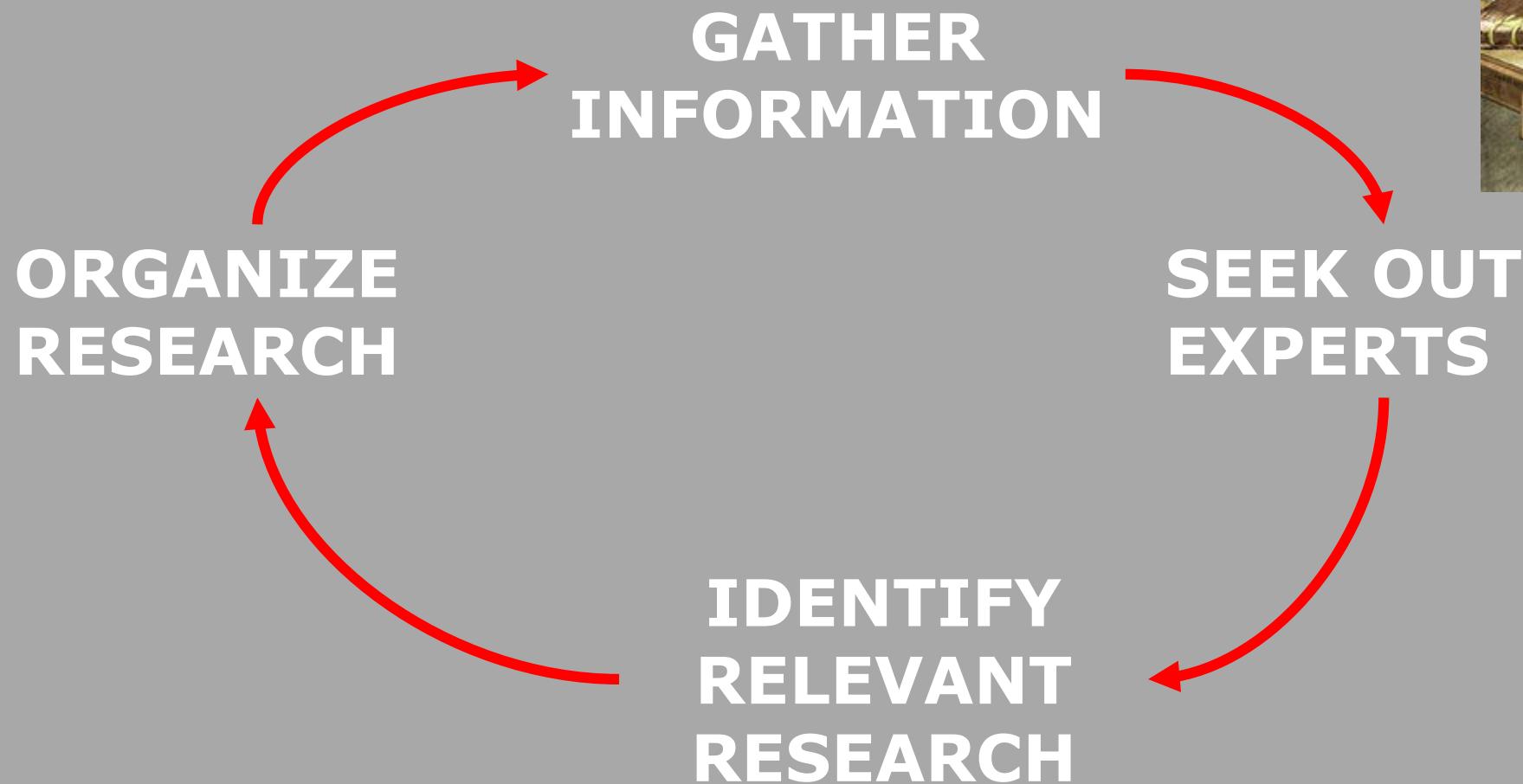
STEPS IN PROBLEM-SOLVING



STEPS IN ANALYSIS

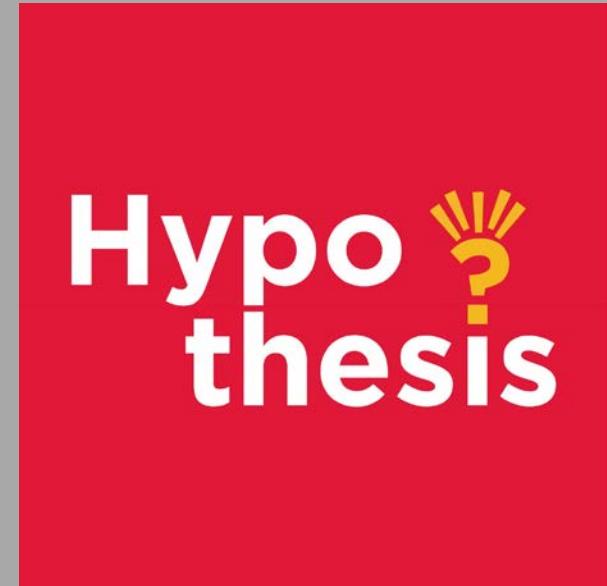


DISCOVERY



HYPOTHESIS

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



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



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.



Three dark, abstract sculptures, possibly made of wood or metal, are arranged on a white surface. They have organic, flowing forms with visible textures and some internal structure. The lighting highlights the edges and surfaces of the sculptures.

Student sculptors were invited to think critically about items important to place, specifically the city of Glens Falls, New York, in honoring the city with mold-making and casting. Students created molds for soap or for chocolate in the investigation of local history and geographies. Many of the molds were generously donated by the sculptors to the project and to New in the Moon Center, including chocolate silhouettes of U.S. Presidents (Wayne Walker), as well as chocolate/gold/platinum interpretations of the lake waters at sunset.

Photographer conducted multiple photo shoots at the Moon Cast, involving one of the students in the class. The students took photographs that ultimately appeared in the final project by students across the spectrum of the project: design, strategy, marketing, planning, and production. The Moon Cast became a photographic legend on a series of stories that went on to become the word "book" of the year project.

Advanced Poetry Writing is the option to choose for creative writers. Reciting on the 100th Anniversary of the end of World War I, students wrote and recited their own original poems in their book, nearly 1500 pages of their original poetry. The Smart Neighbors Project gives students an opportunity to use the same cognitive skills needed for their

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 Moon Candles. The class broke into three groups, each of which came up with unique and highly-researched marketing plans for the business owner, many of the plans bringing 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 form in the Moonbeam Club and other businesses located in Osgoode, defining how Osgoode State students, faculty and staff can 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 Entrer**, Sculpture I and II
Associate Professor **Julie Julie**, Digital Photography
Associate Professor **Efstratios Kefalowitz**, Marketing Management
Associate Professor **Donna Steiner**, Literary Citizenship



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.



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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



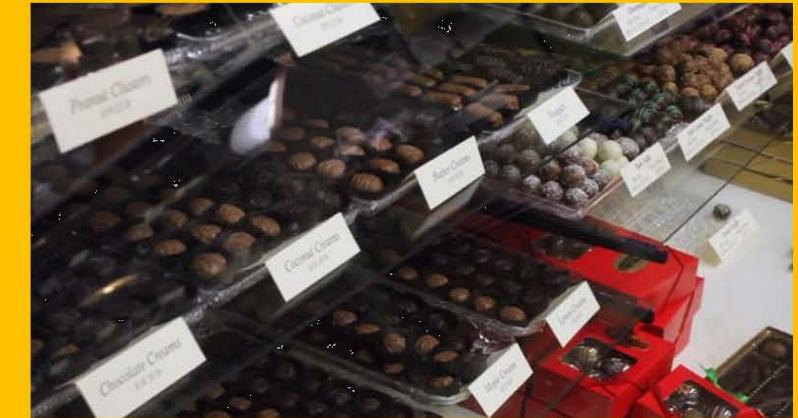
Creative writers in the Literary Citizenship course investigate the relationship between creativity and professionalism, implement aspects of professionalism into practice through the fostering of writing communities and writing literary reviews, and engage in various literary arenas both local and national. 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.



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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



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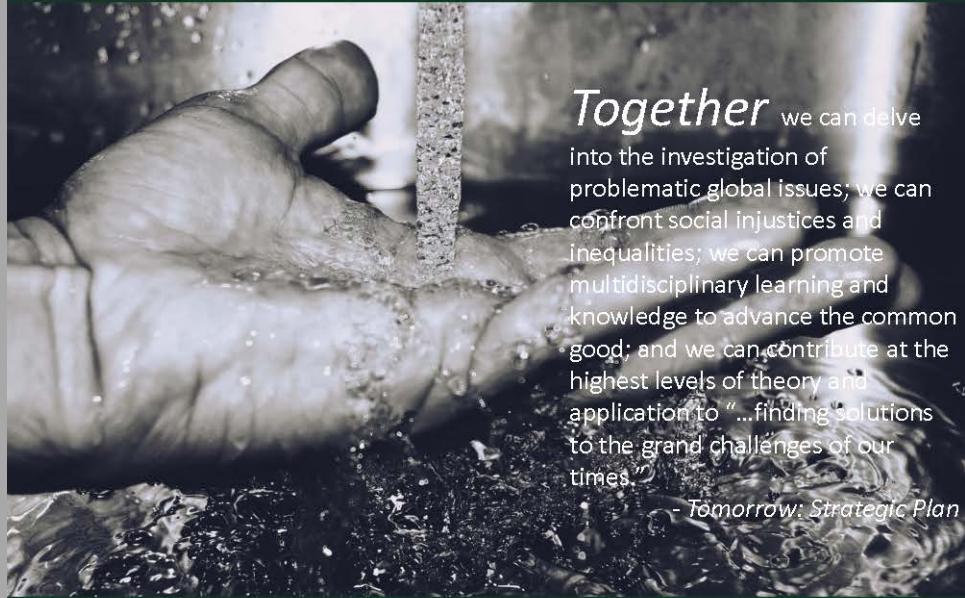
CRW 405 Advanced Poetry



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 Penfield 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



The Grand Challenges Project: Fresh Water for All



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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

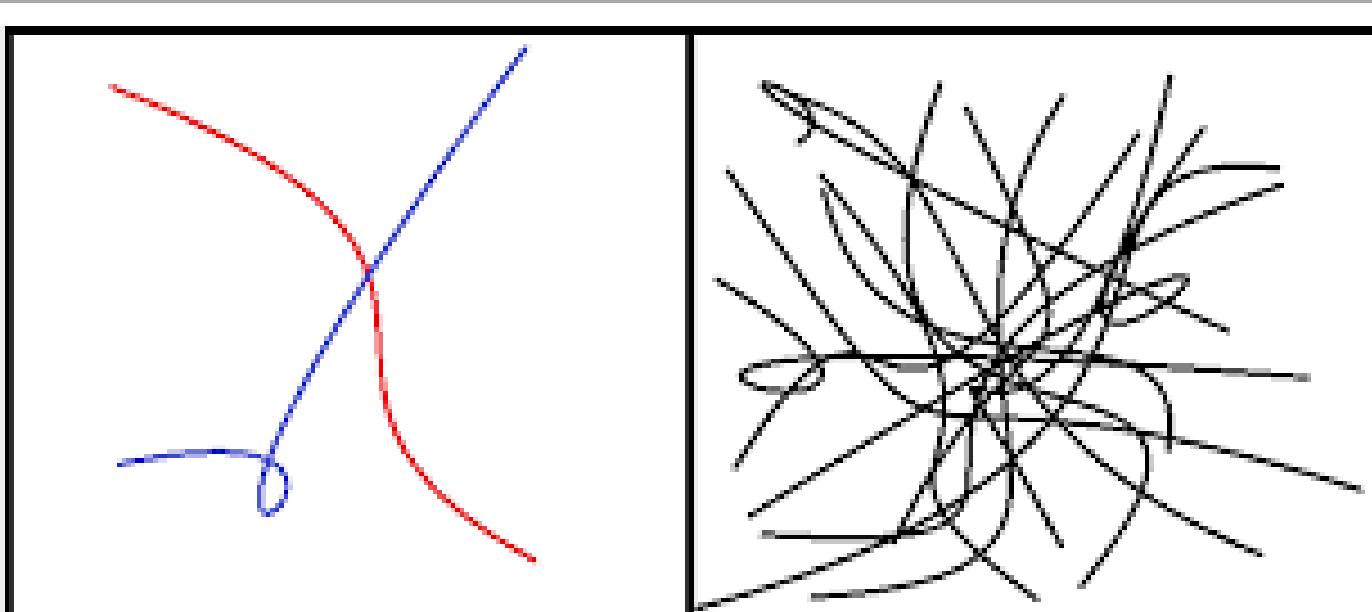


SUNY
ONEONTA

SUSTAINABLE SUSQUEHANNA
AND PBL IN ACTION

PROBLEM BASED
LEARNING
A STUDENT PERSPECTIVE

WHAT WE LEARNED



Traditional Problem

Wicked Problem

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

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

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

“I learned how hidden poverty can be”

[**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

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



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

James Liszka:

James.Liszka@Plattsburgh.edu

Becky Kasper

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