



2017 SIS and CARS Vignettes Table of Contents

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PROJECT VIGNETTE

Name(s):

Beverly J. Brown

Grant title:

Adding a Plant Tissue Culture Module to Plant Biology

Type of grant: CARS SIS

The purpose of my project was to...

develop a new module on plant tissue culture (PTC) to be added to the existing Plant Biology course. Plant tissue culture is the technique used to create many of the plants available in big box stores. It is an excellent teaching tool to make plant growth and development visible for students, while helping students develop a very marketable skill.

To accomplish this, I (we)...

established cleaning and use protocols for the tissue culture area, established a list of items necessary for basic work with tissue culture, acquired the necessary equipment, media and references, arranged for cleaning and sanitizing of the tissue culture area, began testing a protocol to propagate Boston Ferns, and added a tissue culture lab using carrots to BIO216, Plant Biology.

Thus far, I (we) have...

had excellent results with maintaining pure cultures of the ferns. Students in Plant Biology began the carrot tissue culture experiment in the middle of the Fall 2017 semester.

With the following interesting results...

the Boston Fern explants are growing more slowly than anticipated. It will be several weeks before we have results from the carrot tissue culture experiment.

In the future, I (we) hope to build on this project by...

involving more students in independent research projects using tissue culture methods.

This project was only possible because of SIS funding, Lauren Williamson's (undergraduate student worker) dedication to the project and considerable ability to trouble-shoot procedures, and Sharon Luxmore's (Biology Department Laboratory Coordinator) help with procuring supplies and providing additional student workers to help with the key sanitizing and cleaning components.

PROJECT VIGNETTE

Name(s):

Stephen Hill

Grant title:

Political Skill Intervention Project

Type of grant: CARS SIS

The purpose of my project was to...

create dramaturgical or drama-based workshop interventions to promote the development of political skill, or effectively understanding and influencing others in the workplace.

To accomplish this, I (we)...

and Caitlin Drago of Inspire Improv and Coaching developed workshop interventions, and data collection protocol over the summer according to the schedule outlined in the proposal application.

Thus far, I (we) have...

been approved by HSRC to move forward with the workshops and data collection. We just completed our first pilot workshop and data collection session. The progress we have made in this project is in line with our anticipated schedule as originally proposed.

With the following interesting results...

Data collection has just began so we do not have results to share at this time. Our first workshop was well-received by the participants. Hopefully, our workshops will yield promising results.

In the future, I (we) hope to build on this project by...

presenting our findings at a conference or published outlet. We would like to further examine the application of our results, determining if our workshop intervention would be effect with non-student populations such as individuals in business organizations.

PROJECT VIGNETTE

Name(s):

Melissa Johnson

Grant title:

Self-Perception of Language Abilities in Older Adults

Type of grant: CARS SIS

The purpose of my project was to...

begin the process of disseminating the research findings from my dissertation that have the potential to improve the care of older adults and to promote additional research in the area of self-perception of language changes in older adults.

To accomplish this, I (we)...

wrote a draft of a publication regarding the background, literature review, development, and testing of the Awareness of Language Abilities (ALA) model that I developed for my dissertation.

Thus far, I (we) have...

completed a draft and am working with my dissertation advisor to revise it for submission.

With the following interesting results...

The ALA model has the potential to provide a framework for discussion and future research on self-perception of language in older adults. Currently, there is no such framework and there has been very limited research attention to this area, despite the fact that language abilities are known to decline in healthy older adults, as well as those with cognitive decline. It is my hope that publication of this model will stimulate the additional research and clinical attention that I believe are warranted.

In the future, I (we) hope to build on this project by...

continuing revision and then submission to the peer-reviewed Journal of Speech, Language, Hearing Research (JSLHR) for potential publication. Additional analysis and publication of results are planned for a future publication.

PROJECT VIGNETTE

Name(s):

Otieno Kisiara and Shirley Sommers

Grant title:

Refugee background parents' knowledge of and perspectives on school anti-bullying policies.

Type of grant: CARS SIS

The purpose of my project was to...

The purpose of the study is to examine the understanding and perspectives of school anti-bullying policies of parents from refugee backgrounds.

To accomplish this, I (we)...

To accomplish this we collected data using the focus group method, with parents drawn from the refugee community here in Rochester. Focus group interviews were conducted with a total of 27 parents from refugee backgrounds. Interviews were recorded and transcribed. We are currently analyzing data through coding. Nvivo will also be used for refinement of codes and themes.

Thus far, I (we) have...

Thus far, we have collected data through focus group interviews; we have transcribed the interviews; we are in the process of data analysis.

With the following interesting results...

Still in the process of data analysis.

In the future, I (we) hope to build on this project by...

In the future, we hope to build on the project by conducting a study on how educators can connect with parents of students from refugee backgrounds.

PROJECT VIGNETTE

Name(s):

Keith Koster

Grant title:

Delivery of online course ME0108 Orientation and Introduction to Music Education

Type of grant: CARS SIS

The purpose of my project was to...

Explore ways to create an online course experience that was more than just a series of slides. I wanted to be able to include videos, imbedded links and more sophisticated kinds of learning experiences into a online course module.

To accomplish this, I (we)...

I audited Jen Sadue's online course training this past summer (2017) and in six weeks. While conceptualizing the MED108 course prior to the online course training, I was able to revise learning outcomes and the design of the course in more meaningful ways.

Thus far, I (we) have...

In summer 2017, I was able to successfully complete the MED108 course. It is ready to be available to students. I hope to offer the course during a summer session in 2018.

With the following interesting results...

Thanks to the time, support, and training that I received, it's a much better course and online experience for students. That said, I am now able to integrate current events, multimedia, and other kinds of technologically-enhanced learning experiences into the course. This will keep the course "fresh" not only for the students who enroll but for the instructor as well.

In the future, I (we) hope to build on this project by...

Integrating more technology into my classroom-based courses. Because of the support that I received to complete this project, I am much more confident in my knowledge of designing interesting course experiences in (a) online-only courses, (b) online-hybrid courses, and (c) regular classroom-type courses. NOTE: Once I am able to teach MED108 online, I will reflect on that experience and could possibly present my findings at a music education conference. Thank you.

PROJECT VIGNETTE

Name(s):

Carolyn Lagoe

Grant title:

An exploration of the link between communication and oral health behaviors

Type of grant: CARS SIS

The purpose of my project was to...

The purpose of this investigation was to examine the relationship between communication variables, psychological factors, and oral health outcomes. Our research specifically assessed positive/negative communication with dental providers (social support), dental anxiety, attitudes toward oral health, oral health efficacy, and one's inclination to seek dental care in the future.

To accomplish this, I (we)...

We took several steps to implement our investigation. First, we worked to collect relevant literature in the fields of communication, psychology, and public health. This required us to search for articles using Communication and Mass Media Complete, PsychInfo, and Pubmed. We used results from published work to identify gaps in research and solidfy hypotheses to test within our own study. Survey measures were used to capture data. Some of our measurement items come from previously tested/validated scales and others had to be developed by the research team. Once data was collected, we used latent content analysis to code for open-ended responses and SPSS to analyze quantitative data. We began to build on our previous literature search to formally draft our manuscript. This manuscript will be submitted for consideration at a top conference in the field of communication. If accepted, our results will be presented spring/summer 2018.

Thus far, I (we) have...

Thus far, we have been able to achieve all formal goals set out for the project. We worked to identify relevant literature, design survey measures, collect/analyze data, and draft a formal research report. Student involvement took place at every step of the process. Some students were heavily involved in collecting literature and survey design, while others participated throughout the entirety of the project.

With the following interesting results...

Our results yielded relevant and timely information. We found positive communication with dental providers to have an impact on patient outcomes. Individuals who could recall an especially validating experience with a dentist were more likely to have positive attitudes toward oral health maintenance, decreased feelings of anxiety, enhanced feelings of efficacy, and stronger intentions to

visit a dentist in the future. Similar results were yielded for individuals who could recall a validating experience with a hygienist.

The effects of negative communication on outcome variables were not as potent. Significant differences were not found in attitudes between groups. Individuals who had experienced negative communication with hygienists and dentists were less likely to feel efficacious in their ability to maintain their oral health. Also of note, those who had a negative experience with a hygienist were less inclined to seek dental care in the future.

With respect to dissemination of our findings, the deadline for a premiere conference in our field is coming up and our manuscript will be submitted for consideration. If accepted, our students will be invited to present at the conference with me. Once we receive feedback from conference reviewers, we will use this information to make updates and adjustments to the manuscript. The final version will be submitted for review at a communication journal.

In the future, I (we) hope to build on this project by...

We plan to build on this project in a number of ways. Results from the investigation have led us to consider what our next steps will be. We already have ideas about how to move forward in this line of work and hope to collect data assessing other communication variables that can impact oral health outcomes. Ultimately, a collection of investigations can be used to continue expanding theory in this domain. Two students who worked on the summer CARS grant are continuing to work on health communication research investigations with me throughout the academic year.

PROJECT VIGNETTE

Name(s):

Sanela Lampa-Pastirk

Grant title:

Green Synthesis of Quantum Dots Using Bacterium *Shewanella Oneidensis*

Type of grant: CARS SIS

The purpose of my project was to...

The application of quantum dots (QD) in a number of contemporary technologies has led to the industrial level scale-up of their synthesis reactions. With scale-up of these reactions came the raised concern about related environmental issues such as increased levels of toxic metals and their long term effect on the genetics of exposed organisms. As a result, there is a growing interest in developing bio-based methods for aqueous, low-cost, green synthesis of inorganic QD materials.

To accomplish this, I (we)...

Our research focuses on developing new strategies for controlled biosynthesis of Cd and Zn QDs using proteobacterium *Shewanella oneidensis* MR-1. This well-studied metal-reducing bacterium has a great potential to be utilized as a biological factory for production of QDs due to its naturally high resistivity to toxic metals that is directly related to *Shewanella*'s unique respiration mechanism. Quality of nanoparticles biosynthesized by *Shewanella* will be assessed by comparing them to quantum dots manufactured using methods of standard inorganic synthesis.

Thus far, I (we) have...

So far, students successfully used inorganic synthesis to prepare Cd and Zn QDs of different sizes by adjusting reaction conditions such as combination of surfactant, growing temperature and time. Absorption and fluorescence spectroscopy were used to monitor size and quality of synthesized quantum dots. Students also mastered anaerobic culturing of *Shewanella* and successfully utilized established protocols for production of monodisperse silver quantum dots.

With the following interesting results...

We are currently preparing Cd resistant strain of *Shewanella* and optimizing initial conditions for application to bioproduction of CdS and ZnS QDs.

In the future, I (we) hope to build on this project by...

Studies on variety of other microorganism indicate that cell growth time and concentration of cadmium acetate influence size of the CdS particles as well as their quantum yields. The correlation between growth conditions, size of CdS nanocrystals and their quantum yield will be established. This study will be extended to preparation of CdSe and non-toxic ZnS quantum dots.

PROJECT VIGNETTE

Name(s):

J.J. Mowder-Tinney

Grant title:

Interprofessional Education Collaborative (IPEC)

Type of grant: CARS SIS

The purpose of my project was to...

Bring a group of faculty from HHS to a conference called the Interprofessional Education Collaborative (IPEC). The purpose of attending the IPEC was threefold: 1. Network with colleagues focused on similar initiatives and best practice, 2. Utilize consultations with national experts and peers to improve professional development and decision-making practices and 3. Identify how the IPE efforts can contribute to the research base.

To accomplish this, I (we)...

Attended the conference and during participation put together a strategic plan for the Interprofessional Education (IPE) within Nazareth College.

Thus far, I (we) have...

Identified five areas that need to be strategically developed in order for the college to move forward. They are curriculum, research, assessment, faculty professional development, and coordinated and sustained oversight of experiences in both inter-professional education and inter-professional practice for our students. The outcome of the team's time together and the work at the IPEC was a draft of a Strategic Plan.

With the following interesting results...

A new IPE committee was formed resulting in 4 subcommittees that are meeting and assessing their role given the strategic plan. In addition, we are revising the strategic plan in the new committee.

In the future, I (we) hope to build on this project by...

1. Educate fellow faculty on varying IPE formats being used at other Universities.
2. Develop faculty skills in IPE.
3. Present and integrate new action plans for program development.
4. Develop at least one collaborative poster presentation to submit to appropriate professional conferences highlighting our approach.
5. Start a process for collecting data that measures student learning.
6. Identify and collaborate with faculty interested in developing a manuscript for publication.

PROJECT VIGNETTE

Name(s):

Zhansui Yu

Grant title:

Oppositional Political Fiction in Twenty-first Century China

Type of grant: CARS SIS

The purpose of my project was to...

The research examines the political novels produced in twenty-first century China which hold a basically oppositional stance toward the Chinese one-Party system and the Chinese model of development. Based on close readings of four representative oppositional Chinese political novels, the study aims at four goals: (1) To examine the political and epistemological values of these novels in the broad context of modern Chinese intellectual history and contemporary Chinese politics and society; (2) To draw a sketch of the changing social, political, and intellectual landscape in contemporary China, through investigating some of the most serious problems facing China today as presented in these novels; (3) To explore the rise of oppositional political novels in twenty-first century China from the perspectives of both the social, political milieu and the internal development of literature itself; and (4) To investigate the relation between art and politics in the Chinese context, the ideological limitations of Chinese political fiction due to censorship and self-censorship, and its possible development in the future.

To accomplish this, I (we)...

Aiming at both analytical profundity and narrative readability, this research blends the “close reading” of literary texts and the “cultural studies” approach to social phenomena presented in the texts. In the process of textual and social analysis, I not only extensively employ theories of Western political philosophers such as Hannah Arendt’s study on totalitarianism and her notion of the banality of evil, Antonio Gramsci’s theory of cultural hegemony and political acquiescence, Jürgen Habermas’s and John Rawls’s discourse of the public sphere and “deliberative democracy,” etc. as well as well-regarded studies on contemporary Chinese politics, society, and intelligentsia by Minxin Pei, Joseph Fewsmith, Timothy Cheek, Jeffrey Kinkley, and many others, but also rely on my direct observation of Chinese society based on my real life experience in China. Through synthesis of varied theories, perspectives, and approaches, the research pursues both empirical impressiveness and theoretical persuasiveness.

Thus far, I (we) have...

I have already completed the first draft of the entire manuscript. Book proposals have been sent to presses for review. I am revising the manuscript according to the comments and suggestions from several well-respected scholars in the field of Chinese studies who read the manuscript.

With the following interesting results...

This research is the first book-length monograph in English to deal with oppositional political novels produced in twenty-first century China. A pioneer study of a literary genre which has never been touched before, the research fills a vacuum in studies of Chinese political fiction. With its unique

vision and approach and its in-depth analysis of contemporary Chinese politics, society, and literature, the proposed book will make significant contributions to the field. Some of the outstanding features of the book are summarized as follow:

- (1). The novels discussed in this study have rarely or never drawn critical scholarly discussion before, except for brief book reviews; it will broaden the vision of studies of Chinese literature.
- (2). The study provides an in-depth analysis of the background, history, and the political and epistemological values of oppositional Chinese political fiction.
- (3). The study sheds new light on the Chinese political system, the Chinese model of development, the transformation and division of the Chinese intelligentsia, the changing mentality of ordinary Chinese people, the relationship between literature and politics in the Chinese context, and the working of censorship and self-censorship in China. The findings in the study will deepen readers' understanding of today's China.
- (4). Extensively citing influential political philosophers as well as well-established scholars in both general Chinese studies and Chinese literature, methodologically, the study blends the strategies of cultural studies and literary criticism characterized by its "close readings" of literary works. As such, the study aims at both discursive profundity and narrative readability.

In the future, I (we) hope to build on this project by...

I hope this project would be published by an academic press, and the book can be used as a reference book for my Chinese Senior Seminar course.