

**2022 Annual Student and Faculty OSCARS**  
**Outstanding Scholarship, Creative Activities and Research Symposium**  
**April 27-May 4, 2022**

**Faculty Presentations**  
**SoTL Scholars and Minnesota State REFLECT Learning Community**

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*All presentations are available virtually and asynchronously on the Symposium Website throughout the OSCARS event.*

1. *Suzanne Szucs, Rochester Community and Technical College*  
Shifting Pedagogy Towards Authentic Learning

This study explores the ways inclusive pedagogy and meaningful, authentic learning affect student mindset, self-efficacy, and a sense of belonging in a Media Arts course at a community college. There has been much research directed at student achievement, while less has been devoted to exploring shifts in pedagogy or focused on the methods of the educator. This investigation leads to a fundamental question central to supporting student success: Will a pedagogy shift towards meaningful authentic learning help move learners towards growth mindset, self-efficacy and a sense of belonging? Whereas students had been asked previously to work with an established fairy tale, participating students were encouraged to either create their own stories, or to personalize a story with which they were familiar. They were given pre- and post-surveys measuring growth mindset, self-efficacy and a sense of belonging to determine any positive shifts in self-perception. Additionally, self-reflections by both the researcher (instructor) and the learners provided qualitative material to support any perceived changes. Follow-up interviews confirmed that, at least for this small sample, authentic learning and personalization positively impacted the interrelated areas of growth mindset, self-efficacy and a sense of belonging.

2. *Matthew Schuster, Anoka-Ramsey Community College*  
How Students Consume Online Lectures

As students and technology change, the way teachers teach must, at least to some extent, change too. One change that is evident in both students and technology is an increase in the use of instructional videos. Traditional-aged college students today have grown up in an age where streaming videos from various formats including free social media and paid formal services have become a standard way to consume information. To that end, there are growing expectations on faculty to meet students where they are and create our own videos for delivering course content. The goal of this study is to examine how effective recorded videos are, in comparison to written

lectures, at delivering course content and helping students be successful. Specifically, this study presented students with two different options for receiving lecture content in first- and second-year political science courses at a suburban, midwestern, community college. Students could receive lecture material by either reading lecture notes or by watching videos of the instructor going over the notes—or both. By using both quantitative and qualitative measures, this study varied how students consume lecture material and compared the differences between their academic outcomes and perceptions of both the course and their instructor.

3. *Keith Bistodeau, Anoka-Ramsey Community College*  
*Systemic Racism and Technology Use in Higher Education*

This research study sought to address different barriers and challenges that students face regarding their success in online learning environments. While research in the area is not new, the COVID-19 pandemic has placed extra emphasis on the need for us to ensure that students can and do succeed in our classes and on our campuses. This study looked at how our use of technology in classes perpetuates systemic racism within higher education and how we as educators can work beyond the barriers of technology when technology is the vehicle through which we work with our students, even though it often creates a barrier for our students. Through a blend of quantitative and qualitative surveys, this study found limits differences between students based off of their identified racial backgrounds but saw multiple areas of concern related to barriers students face regarding their academic success. While this study was limited by the number of responses (n=34) and the type of students surveyed (community college students), it does function well as a pilot for future studies looking at a broader range of students from a wider variety of backgrounds and college settings.

4. *David Anderson, St. Cloud Technical and Community College*  
*Pictorial Conceptual Metaphors in the Online Biology Classroom*

Metaphors are often used by instructors to convey meaning of abstract concepts but can also be used as a learning tool where students make meaning with these devices. When combined with pictures, metaphors can be powerful cognitive models to help students relate concepts requiring visualization of large or very small structures or complex function. This SoTL study seeks to explore how students demonstrate their learning of cellular biology with pictorial conceptual metaphors and how this type of assignment impacts student views of an asynchronous online anatomy and physiology course.

5. *Debra Kasel, St. Paul College*

Intercollegial Student Workshop using the PEEER© Communication Model for Difficult Situations

Background: Students frequently comment how they feel under prepared to deal with difficult situations in the healthcare setting. To address this issue, Respiratory faculty from St. Paul's College, MN and Northern Kentucky University, KY, developed a workshop for their students to learn and practice the PEEER© Communication model as a structured method for interacting in difficult situations. The essential elements of this model are P-Plain Language; E-Engagement; E-Empathy; E-Empowerment; and R-Respect. Method: Using ZOOM format, faculty (n=2) and students from both programs (n=29) introduced themselves. The student learning objectives were given: 1) compare effective and ineffective communication skills in a simulated healthcare scenario; 2) define and discuss the 5 elements of the PEEER© Model of communication for healthcare teams; 3) participate in meaningful discussion with Respiratory students outside of their own university and geographical region. Faculty gave descriptions and applications of the PEEER© elements. Simulation scenario 1 was a brief video of healthcare providers gathering outside of a patient's room talking about the patient and his medication compliance; the patient's wife walked past the group as she entered the room. At the end of the video, students were arranged in Break Out rooms. Using the PEEER© Activity Worksheet, students discussed effective and ineffective communications exhibited; student groups were mixed from both Respiratory programs. Afterwards, all gathered in the large group for debriefing. Simulation scenario 2 was an inpatient sudden cardiac arrest. Two Respiratory Therapists, two RNs, a Physician, and the patient's wife were in the room when the patient coded and CPR was started. Students were instructed to again evaluate the interactions between healthcare providers and wife during this difficult situation. At the end of the scenario, students and faculty gathered in the large group for debriefing. Students were invited to complete a post workshop survey. The survey consisted of 7 questions using a 5 point Likert Scale about the general workshop experience (1 = *Very Dissatisfied*, 2 = *Dissatisfied*, 3 = *Neutral*, 4 = *Satisfied*, 5 = *Very Satisfied*) and to what extent they understood and were confident in use of the PEEER© model (1=*Not at all*; 2=*Little* 3=*Somewhat*; 4 *Much*; 5 *A great deal.*) NKU IRB reviewed the project and gave exempt approval # 1318. Results: 19 students participated in the survey (66%). The majority said the workshop was valuable (78.95%), they successfully interacted with students outside of their own college (89.47%), and they gained foundational skills and understanding in the PEEER© Model (94.74%). 84.2% reported there was an appropriate variety of learning formats for the activities (pre-work reading, class discussion, videos, patient simulation). When asked if they believed they gained a deeper understanding of all 5 PEEER© elements, the mean score was 4.4 out of 5.0. 90% said they were confident in their ability to use PEEER© skills. 95% believed they'll use these skills! Conclusion: Using the PEEER©

Communication Model was an effective method for students to gain confidence and skill in communication in the healthcare setting.

6. *Peggy Guiney, Anoka-Ramsey Community College*

Practice Sustainability Undergraduate Research Project

In this presentation I explain the Practice Sustainability Undergraduate Research Project that students complete in my Environmental Science class. I explain the project process, second year modifications, and my reflections. Through the project students explore the following three research areas: food, waste, and recreation. After investigating these topics and completing an assessment students choose a topic to research. I organize students into small groups based on topics. Each group will develop a central research question, hypothesis and prediction. Groups will collect data before and after the behavior change. The resulting group data is compiled and analyzed. Students discuss to what extent their project topic can help society create a sustainable future. Finally, each group creates a research presentation that is shared during the online synchronous class.

7. *Anne Pelzel, Anoka-Ramsey Community College*

The Effects of Independent and Interdependent Learning Experiences in Online Psychology Courses

This study investigated the relationship between independent and interdependent teaching methods and student feelings of belonging, connectedness, and success in psychology courses at a rural community college in the Midwest. The study took place during the fourth semester of pandemic impacted remote teaching and learning. Students completed pre and post course surveys with questions about independent and interdependent motives, belongingness, and connectedness in relation to their classroom experience. Students engaged in independent and interdependent learning activities and assessments throughout the semester. Results indicated that students' feelings of belonging, and connectedness were positively impacted by both independent and interdependent methods. Limitations to the study included the sample size, self-reported data, and student's willingness to participate in an online study. Future research is needed in face-to-face community college classes that examine independent and interdependent methods.

8. *Colleen Kaiminaauao, Anoka-Ramsey Community College*

School Sense of Belonging in Students Enrolled in Developmental Mathematics Courses During a Pandemic

The Covid-19 pandemic presented new challenges for students and college faculty as they were forced to quickly pivot and adapt to new learning environments, with many shifting from face-to-face to partially or fully online. Tinto (1993) noted the importance of successful integration with some aspect of the campus community, and how it is associated with student persistence. Thus, students unable to integrate in

some manner are at risk for withdrawal from the institution (Tinto, 1993). On an individual level, students seek affiliation, identification, and membership with a peer group (Astin, 1993). Meaningful interpersonal relationships, systems of support and resources, and feelings of being accepted and valued, have all been cited as instrumental to sense of belonging (Hurtado & Carter, 1997; Strayhorn, 2012). This study investigates how the transition to online learning during the pandemic impacts developmental math students' sense of belonging at both the class and campus levels. The study is being conducted at a rural community college in the Midwest during the fourth semester of pandemic impacted remote teaching and learning. Students will complete a survey with questions derived from the Simple School Belongingness Scale (Whiting, Everson, & Feinauer, 2018), along with additional demographic questions. Associations between sense of belonging will be analyzed.