



## 2020 CELEBRATION OF TEACHING & LEARNING SYMPOSIUM PRESENTATION ABSTRACTS

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*The cover image is a word cloud generated using the abstracts submitted to the Symposium and created by Heather Meredith, CETL Graduate Assistant, University of Southern Indiana.*

## **KEYNOTE PRESENTATION:**

### **IN THE COMPANY OF OTHERS: LEARNING ANALYTICS AND THE SCHOLARSHIP OF TEACHING AND LEARNING**

Jennifer Meta Robinson, Ph.D., Indiana University Bloomington

#### Abstract:

“Big data” is regularly used by higher education institutions to assess student progress toward their degree. However, faculty may not see much of themselves in that statistical picture, often encountering it as a stark numerical value of average time to degree, percentage of students retained, or the like. When faculty members gain access to big data, new possibilities open for framing questions that increase their impact on student success. This arena is new for the scholarship of teaching and learning, proposed as early as 2010 but only recently gaining traction. In this talk, I discuss research by a faculty team that is leveraging large-scale learning analytics to inform disciplinary instruction. Their work reveals opportunities to make major, evidence-based interventions in their courses in ways that respect faculty members’ disciplinary knowledge, their wisdom of practice, and students’ experiences. Teaching about 7000 students per year in the general education curriculum, this team from the life sciences, information sciences, social sciences, and humanities shows the value of collaboration to close the gap between teaching and learning to help students succeed.

#### About the Keynote Speaker:

Jennifer Meta Robinson, Ph.D, is Professor of Practice in the Indiana University Anthropology Department where she studies sustainable food systems and college pedagogy. Her pedagogical research has focused on faculty learning communities, scholarship of teaching and learning, and learning analytics. She and a team of graduate assistants teach Interpersonal Communication: A Cultural Approach to about 1000 students per year. She was president of the International Society for the Scholarship of Teaching and Learning (ISSOTL) and co-edits the IU Press book series on Scholarship of Teaching and Learning. A Student Learning Analytics Fellow and Mack Fellow, she teaches graduate courses on college pedagogy and co-directs IU’s Graduate Certificate on College Pedagogy. She won Distinguished Service Awards from ISSOTL and IU’s teaching academy and received the Trustees Teaching Award from IU in 2018 and 2012. She co-edited the book *Teaching Environmental Literacy across the Curriculum and Across Campus* (2010). A new book on how graduate students learn to teach at the college level is under contract.

Jennifer studies local food movements and is a member of IU’s Emerging Area of Research on Sustainable Food Systems Science. Two books explore the relationships and trade-offs in alternative agriculture—*Selling Local: Why Local Food Movements Matter* (2017) and *The Farmers’ Market Book: Growing Food, Cultivating Community* (2007) She teaches courses on food and culture at the undergraduate and graduate levels.

Her major grants are from the Association of American Universities, Carnegie Foundation for the Advancement of Teaching, Teagle Foundation, Indiana Arts Commission, and Indiana University. She affiliates with the Ostrom Workshop, Integrated Program on the Environment, Food Institute, and Campus Farm at IU.

## **A PROCESS FOR RN-BSN PROGRAM EVALUATION**

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Keywords: Program outcomes, Assessment Rubrics, RN-BSN

### **Abstract:**

#### **Topic/Problem Statement**

Evaluation of a program's outcomes is necessary to support a program's curriculum. Nursing programs are accredited by various bodies, yet each accrediting body expects the nursing program to evaluate itself to ensure the students are meeting the program outcomes. The purpose of this project is to develop the process for Registered Nurses – Baccalaureate of Science in Nursing (RN-BSN) program assessment through mapping of key assignments to program outcomes and assessment rubrics development to demonstrate student achievement of program outcomes. Faculty use of assessment rubrics will determine student learning and achievement of program outcomes.

#### **Context**

The University of Southern Indiana on-line RN-BSN program has six program outcomes. While regulatory bodies look at prelicensure programs and NCLEX pass rates, it is also essential to evaluate the effectiveness of RN-BSN programs. There was no clear data to demonstrate achievement of program outcomes. Licensed RNs are required to complete nine nursing courses. Specific courses assignments were identified with key evidence to demonstrate the students' achievement of program outcomes.

#### **Grounding**

A search of literature using three online databases revealed limited published research related to nursing program evaluation. Literature reviews reveal much of the published evaluation research focuses on evaluation of individual courses or instructional methods rather than systematic program evaluation (Horne & Sandmann, 2012; Russell, 2015). Research related to use of rubrics in program evaluation focused on interrater reliability for grading individual student written assignments (Kilanowski & Bowers, 2017), mapping competencies to course assignments (Laux & Stoten, 2016). The lack of overall program evaluation research supports the need for study and development of effective processes for documentation of outcomes and program evaluation.

#### **Approach**

The project was submitted for Institutional Review Board for approval. The project was identified as a quality improvement project. Two workshops were conducted in May 2019. Day 1 was to examine the courses for key assignments and identify evidence that would demonstrate achievement of program outcomes. Day 2 was the development of the assessment rubrics with the assistance of an Assessment Consultant. Assessment rubrics were piloted in six classes in Summer 2019. Face validity of assessment rubrics were determined by two faculty not participating in the workshop. Assessment rubrics were revised based on the comments from the faculty reviewers and will be piloted in additional courses.

#### **Reflection/Discussion/Lessons Learned**

The piloting of the rubrics by faculty identified concerns with the provision of evidence needed to demonstrate achievement of program outcomes. The face validity reviewers provided vital feedback and suggestion on how to modify the assessment rubric ensure the measurement of identified

outcomes. Assessment rubrics were revised based on feedback from the faculty participating in the pilot and face validity reviewers. Face validity review and discussion provided clarity on how the assessment rubrics needed to be modified to demonstrate the evidence of students achieving program outcomes. This was a collaborative effort between the faculty of the RN-BSN program. The face validity reviewers taught outside of the RN-BSN program. Measurement of student learning and achievement of program outcomes will begin Summer 2020.

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## BE GOOD TO YOU!

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Keywords: self-care, mental health, assignment

### Abstract:

A survey by the American College Health Association indicated that three out of five students experienced overwhelming anxiety, and two out of five students were too depressed to function (Roy, 2018). There has been a significant increase in the number of students being referred to a mental health provider after showing signs of distress in their daily interactions at school, etc. Living Works has gatekeeper training for individuals called the Applied Suicide Intervention Skills (ASIST) program. Living Works estimates that ASIST has prevented over 300,00 suicide attempts (Living Works, 2020). Part of the ASIST program encourages the development of regular self-care activities.

The Be Good to You! activity was developed and implemented to provide students a self-care activity. Many students are simply in need of a healthy release for the stressor that is affecting them. The activity has been used for over three years with positive feedback from both undergraduate and graduate students. The activity is presented as a regular course assignment given to all students, regardless of the course delivery platform. The activity is introduced the first day of the semester and the students have until the week before finals week to complete the activity.

Be Good to You! has two parts. The first part is to get instructor approval for the activity and then post proof that the activity was completed. This proof is usually a selfie photo of the student engaged in the activity. Students have engaged in getting a massage, mani-pedi, attending sporting events, playing with animals at the local humane society, hiking, surfing, running in a marathon, Christmas caroling, going to the zoo with their nieces and nephews, getting a deluxe facial treatment, clothes shopping, and many other activities.

Students have given positive comments on the activity in the course evaluations. One student commented that this assignment should be part of every college course because the assignment required them to focus on themselves and relax doing something that brings them joy. Another student wrote that this assignment has proven that stepping back from the stress of school gave a renewed energy for studying and will be something they do regularly in the future. Several students commented that this one assignment helped them to “stay present” and better manage the imposed requirements of their classes and life experiences. In-class feedback from students has been positive and several students felt that this activity had a positive impact on their feelings about school. Providing this activity as part of the course sends a message that taking time for yourself and destressing can bring the student's perceptions and life more into balance.

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## CONTINUOUS IMPROVEMENT IN TEACHING STRATEGIES THROUGH LEAN PRINCIPLES

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Keywords: continuous improvement, lean principles, PDCA

### Abstract:

Faculty attempt to accommodate numerous learning styles to aid individual students in their comprehension and retention of course content, however, formal feedback from students is rarely gathered in a timely fashion. Most formal student course evaluations are conducted at the end of the semester, with survey results available to faculty after the semester has ended. While feedback from these surveys can be integrated into future offerings of the course, this type of survey prohibits adjustments during the semester, which could enhance learner outcomes.

Lean manufacturing principles are used in a wide variety of professional sectors to create opportunities for continuous improvement by embedding systems for regular feedback and executing improvements. The Plan-Do-Check-Act (PDCA) cycle is a lean manufacturing technique providing a framework for continuous feedback and analysis of a system paired with a mechanism for implementing changes and monitoring their success. The cyclical nature of the system accommodates reflection of the changes and the potential adjustments. This system aligns well with reflective teaching strategies, as it integrates ongoing student feedback, analysis of the data, reflection of classroom practices based on student perceptions, and timely adjustments to course delivery techniques to aid students in their learning.

To test the effectiveness of this lean technique in a classroom, the researcher followed the PDCA cycle using GoogleForms and Blackboard as a method for collecting feedback from the students, multiple times throughout the semester. For this experiment, the course was divided into three modules, aligned with the administration of the three non-cumulative exams of the semester. At the completion of each module, a GoogleForms was made available to students via Blackboard. Participation was optional and anonymous, and the directions stated the purpose of the survey and the use of the data. The GoogleForms included questions using a Likert-format response to indicate their perceived effectiveness of teaching strategies and key learning objectives of the course, as well as an open response for any additional feedback. Once data was gathered, the researcher reviewed the data and reflected, with particular focus on how the course format and delivery could be adjusted to better meet student needs.

Based on the results from Fall 2019, the PDCA cycle proved to be an effective tool for gathering meaningful feedback from students during the semester, while allowing for adjustments to be made in a way that increased student's perceived effectiveness of teaching methodologies. Over the semester, the researcher made systematic changes to content delivery based on feedback received from the GoogleForms. The data from the surveys showed a statistically significant increase of student perceived effectiveness in teaching strategies, as well as an increase in perceived knowledge for key content areas. As such, the PDCA cycle was a valuable framework for facilitating continuous feedback, improvement and a measurable increase in student learning. The researcher also noted that students voiced their appreciation of the instructor being willing to make mid-semester adjustments to content delivery, based on their feedback. Students commented that the changes made significantly improved their understanding and retention of course materials.

At this time, the researcher plans to expand the use of the PDCA cycle for continuous improvement in other courses and continue to evaluate the effectiveness of this tool in quantifying learner preferences and learning outcomes throughout the semester.

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## **DESIGNING AND DELIVERING AN EFFECTIVE ONLINE GROUP SOCIAL WORK SKILLS COURSE**

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Keywords: Online learning, course design, social work

### Abstract:

#### Topic/Problem statement:

Social work is a profession of interpersonal communication. This aligned well with the traditional face-to-face classroom, however, has presented some challenges when considering meeting student needs through online education. As technology has evolved, there is greater opportunity to utilize technology to improve communication and connection with students, thus opportunity to develop and assess interpersonal skills and skill development. Designing and delivering an effective skills-based course in a fully online format was the goal for this course development.

### Context:

The course referenced in this poster presentation was developed as part of the required course curriculum for undergraduate social work students. The purpose of this course is to train student social workers in group methods that will be utilized in generalist social work practice situations. Through participation in an online course development program, one of the four sections of the course was developed to be delivered in a fully online format using both synchronous and asynchronous components.

### Grounding:

A review of social work literature by Madoc-Jones and Parrott (2005) shows online education is just as effective as traditional face-to-face. However, there are some social work faculty and programs who remain skeptical of the ability to teach and assess students, specifically the skills-based courses, in an online format (Groshong et al., 2013; Moore, 2005). As there has been an increase in commuter students (Complete College America, 2011), programs have been required to be creative and develop online pedagogical strategies to offer quality web-based education (Ouellette & Wilkerson, 2013).

### Approach:

Through working with the instructional designers in the university online course development program, this course was strategically designed utilizing the Quality Matters Rubric standards, which examines clarity, organization, and other components specific to quality course design (QM Rubrics & Standards, n.d.). In addition to looking at course design, through IRB approval, an exploratory study was completed to look at student performance in the course, including overall course grades as well as individual assignments in alignment with course learning objectives. The study also utilized anonymous online student surveys to explore student perception of their performance and factors related to course design and delivery that contributed to or hindered success in the course.

### Reflection/Discussion/Lessons Learned:

Results indicate the goals of designing a quality online course that met students' needs and allowed opportunity for students to practice and demonstrate competency in group skills necessary for practice were attained. At the beginning of the course, 81% (n=16) of students enrolled indicated the reason for taking the course was flexibility of not having to commute to campus or it fit best in their schedule. Through QM course certification, the goal of designing a quality course was met, however it did not

evaluate the outcomes of student learning. Utilizing an 80% benchmark for determination of student competency, 92% of students met the benchmark with their overall course grade. Of the students (n=8) who completed the post-course survey, 100% indicated they were able to learn effective group skills and felt all course learning objectives were met. As this was an exploratory study, there are areas in which further exploration are necessary, including comparison against the traditional face-to-face sections.

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## DOES PRECALCULUS HURT MORE THAN IT HELPS?

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Keywords: Precalculus, student success

### Abstract:

Precalculus is intended as a rigorous preparation for calculus, developing students' abstract reasoning skills, algebraic thinking, and deepening their understanding of a variety of mathematical functions. We ask whether USI's precalculus courses are achieving these goals. In a recent national study, Bressoud (2014) found that success rates in precalculus are relatively low, while only 50-60% of those who succeed in precalculus actually continue to calculus. For the students who do make it to calculus, there is evidence that precalculus does little to increase their chances of success, and the additional semester may actively discourage some students, especially those from underrepresented groups (Sonnert and Sadler, 2014). In light of these studies, we investigate the effects of precalculus at USI on students' attitudes towards mathematics, and their subsequent performance in Calculus I. We present preliminary data on student attitudes gathered over several semesters in USI's three credit-hour precalculus course. While we observe a negative impact on attitudes towards mathematics, these changes are not out of line with previous studies (Sonnert 2015). Using a decade of data on student grades in USI's Calculus I course, we match students by SAT score and then compare success rates in Calculus I for the cohort who took precalculus at USI with the cohort who proceeded directly to calculus. Our initial analysis suggests that a semester of precalculus doesn't improve success rates in calculus. We will discuss ways in which this initial analysis can be improved using high school GPA, together with other data.

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## **DON'T JUST SIT THERE: STUDENT ENGAGEMENT AND UNDERGRADUATE RESEARCH IN UNIVERSITY ART COURSES**

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Keywords: Engagement, Undergraduate Research, Learning, Student

### Abstract:

This presentation will focus on two interrelated questions encountered while teaching university art lecture and art studio courses. The first of these is how to increase the engagement of students with course content. The second is how to encourage undergraduate students to start developing their own research. This discussion will review how engagement and research can be inspired, in both art lecture and art studio style courses, as well as for introductory or advanced art students.

The strategies presented in this discussion have mainly been developed from self-reflection, self-assessment, and student feedback but also draw upon some of the literature on student engagement and active learning. These strategies can be described as participatory, experiential, and student-centered because they shift the student experience into a more responsive and responsible role. This shift is similar to what David Lapotto has described as gains in individual development, including the “growth of self-confidence, independence of work and thought, and a sense of accomplishment.” Within the context of the education of an artist this effect can lead to the further development of their individual voice, vision, and artistic practice.

One of the main strategies that I have employed to increase student engagement in art lectures courses is experiential learning or situated cognition. Some examples include getting students outside of the classroom so that they can physically perform for themselves some of the difference artworks and theories that we have studied. Another example includes field trips, maybe right on campus, in which students experience firsthand some of the concepts and artistic principles that we have recently discussed in class. In terms of promoting undergraduate research in art studio courses, for introductory courses, I introduce students to different methods of doing artistic research such as data mining. This serves to expand their understanding of the possibilities for developing their own artistic practice. For more advanced students, I encourage doing research by asking the students to develop self-directed projects with a focus on certain methodologies. As the students shift toward solely working on their own research interests, they begin to feel more ownership for what they are doing. Through this sense of ownership, their engagement begins to increase.

These implemented strategies have impacted student experience and success through both anecdotal evidence and demonstrable outcomes. These include less absenteeism, better test scores, better conceptual development, and higher levels of retention. Passion and enthusiasm are certainly helpful in increasing engagement but by experimenting with some of the strategies that I have used in my own courses such as the flipped classroom, art making as a social activity, situated cognition, and educational constructivism, perhaps other faculty will also experience a positive impact on their pedagogical development and the success of their students.

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## EMBEDDING INFORMATION LITERACY INTO COURSE DESIGN WITH THE FROG

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Keywords: information literacy, backward design, framework for information literacy, library instruction

### Abstract:

According to both Local experience and current literature on the subject one of the instructional obstacles facing academic librarians is the traditional reliance on one-shot library instruction to teach information literacy (IL) skills, which students require time and repeated exposure to master. As such, librarians depend on collaborations with teaching faculty in order to make IL instruction a continuing and essential element of their courses. However, studies suggest teaching faculty often lack either the time or administrative incentives to invest in long-term IL collaborations with librarians. For this reason, librarians need tools for helping non-library faculty to understand how to fully integrate IL competencies into their syllabi and assignments. At the University of Southern Indiana, we have attempted to address these obstacles by developing an interactive, online tool – the Framework Objective Generator (FrOG) – for learning objective generation and course design brainstorming using the ACRL’s *Framework for Information Literacy for Higher Education*. The tool is structured around simple questions mapped to more complex threshold concepts in the context of a guide through the beginnings of the backward design process. Though the FrOG’s main purpose is to guide users toward measurable, Framework-based learning objectives, we also mapped these objectives to the AAC&U Information Literacy VALUE Rubric outcomes to provide USI faculty with a streamlined assessment experience using campus-recognized terminology and standards. In order to help our users make the most of this tool we have also created a visualization, the Framework Transit Map, to represent the concepts at work and the ways in which they are related to each other; we selected a model – the tube map -- that contemporary studies of visualization style and design identify as highly effective for sharing information about complex processes. Instead of viewing individually identified IL skills in isolation or as a static list of practices and concepts, the transit map encourages the user to consider each skill dynamically, in terms of the connections and relations among related concepts and practices. Ideally, the Framework Transit Map serves as an illustrative process guide for considering IL skills as a part of course or assignment creation, designed to be attractive to faculty who would otherwise be reluctant to take on what they might perceive as the extra work of creating and assessing information literacy outcomes above and beyond their disciplinary content. Our ultimate goal is the improvement of IL instruction design for librarians and non-library faculty alike, which we believe will lead to improved student IL outcomes.

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## **EMPOWER YOUR STUDENTS THROUGH OPEN EDUCATION PRACTICES**

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Keywords: Open Education, Empowerment, Motivation, Engagement

Abstract:

Please contact the author for additional information about this presentation.



## FLIPPING A MATHEMATICS CLASSROOM: A BUDGET LIGHTBOARD APPROACH

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Keywords: flipped classroom, lightboard, mathematics, statistics

### Abstract:

There is currently a push for an increase in active learning in post-secondary math and science classes. The benefits of this style are discussed in the Freeman report [4] and advocated for in the recent Joint Statement on Active Learning from the Conference Board of the Mathematical Sciences [5] One commonly used style of active learning is the “flipped classroom,” where traditional lecture content is provided to students prior to class to facilitate more active or engaging activities during class meetings [2, 3].

The question of how to create this material served as the focus of this project. The ideal process would produce video content that is both effective for the teaching of mathematics (and ideally other disciplines), but adapted for online use, while not generating significant overhead in terms of time and effort for faculty. These requirements led to the decision to construct a lightboard [1], but within a significantly smaller budget. Currently published lightboard plans cost upwards of \$8000 to build. This talk will describe the specifics of this particular build which allowed for a final cost of less than \$4000 as well as additional cost saving opportunities for future builds. A majority of the cost savings are due to the adoption of available open-source software.

A flipped classroom approach utilizing the lightboard was piloted during the Fall 2019 semester in two sections of a General Education Probability and Statistics class. This class typically includes freshman through senior science majors and non-majors. Students watched a 7-12 minute video prior to class and completed a pre-class quiz. I will discuss the implementation of this approach as well as initial observations and feedback from the pilot semester. In particular, I will highlight the impact the flipped classroom had on students who identify as “bad at math” or who fear being asked to do math.

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## GETTING DOWN AND DIRTY WITH LEAD APPAREL

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Keywords: interprofessional education, scholarly teaching

Abstract:

### *Topic/Problem statement*

While it is common practice to utilize lead apparel in the radiologic technology, dental hygiene, or dental assisting professions for acquiring radiographic images, the appropriate care and use of lead apparel may sometimes falter through complacency or lack of knowledge. Complicating this matter is the lack of manufacturers' recommended use and care instructions for the lead apparel never making it to the end users. This study sought to examine how much do students truly know about the appropriate care and use of lead apparel.

### *Context*

This scholarship of teaching and learning project involved three disciplines: dental assisting, dental hygiene, and radiologic technology. Faculty from each course came together to develop an interprofessional learning activity surrounding units of study on radiographic quality control. Part of radiographic quality control involves lead apparel inspection. Additionally, two of the researchers were previously involved in a study on examining bioburden of lead apparel leading to this additional focus in the learning activity. The proposed student outcomes focused on students learning more about bioburden present on lead apparel, appropriate cleaning for lead apparel, and visual, tactile, and radiographic lead integrity inspection. Institutional review board approval was obtained for data collection related to students' knowledge about the care and use of lead apparel and radiation knowledge.

### *Grounding*

Olson and Bialocerkowski (2014) note that little research has been conducted on IPE effectiveness in allied health profession fields and what has been done is limited more to improvement in attitudes toward other professions and teamwork rather than actual changes in learning. Reeves, Goldman, and Oandasan (2007), do establish that prelicensure IPE can play a pivotal role in reducing negative effects of professional socialization, mitigating negative stereotypes of other health care professional groups. Cook, Schmuck, and Hollingsworth (2019) indicate that end users of the lead apparel protective devices may not be made aware of the appropriate care and use instructions for the lead apparel related to integrity inspections and maintaining cleanliness of the apparel. As both the radiology and dental professions utilize lead aprons, it seemed appropriate to bring these groups together to focus on learning knowledge regarding the importance of proper use and care of lead prior to their professional practice.

### *Approach*

Faculty from the Radiologic Technology, Dental Hygiene, and Dental Assisting programs developed an innovative Interprofessional learning activity focused on students' knowledge surrounding the care and use of lead apparel. The care and use of lead apparel is often not a primary focus in professional

practice even though all three of the represented professions utilize lead apparel. The activity involved 52 students representing a cohort from each of the respective programs; 19 from radiologic technology, 21 from dental hygiene, and 12 from dental assisting. The activity involved an IRB approved research focus utilizing a pre and post survey tool previously piloted by the researchers. This survey tool measures learning gains through knowledge scale responses on the care and use of lead apparel and student responses on Likert survey items related to radiation knowledge. Students were randomly selected into two different groups who completed a pre-survey then rotated through two activities: a lead apparel hygiene laboratory activity to measure bioburden on lead apparel and a laboratory activity to examine lead integrity. Each group had opportunity to be actively involved in the examination of one piece of lead apparel through both lab activities. Faculty were present in each lab to guide the activity and assist with interpreting the results for each piece of lead apparel. Students then completed a post survey. This study will present the data for learning gains.

#### *Reflection/Discussion/Lessons Learned*

A total of 45 complete surveys were returned. Any surveys with missing data on either the pre or post survey section for knowledge scale responses ( $n = 7$ ) were excluded from analysis. Results from knowledge scale responses indicated a significant increase ( $p = <.01$ ) in the mean score between the pre ( $m = 4.53$ ) and post ( $m = 5.58$ ) survey responses. Additional analysis determined this increase in the mean score occurred across all three disciplines. Student learning was positively impacted through this activity and addressed an area of knowledge gap that students can carry with them into practice. While dental hygiene, dental assisting, and radiologic technology may be viewed as unlikely partners in an interprofessional activity, finding commonalities among professions to bring together the disciplines into an active learning situation can prove beneficial to increasing students' knowledge.

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## **HOSPICE: DYING AT HOME AN UNDERGRADUATE NURSING SIMULATION**

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Keywords: simulation, end-of-life, nursing

### Abstract:

Topic: The Hospice: Dying at Home simulation addressed a gap in undergraduate nursing student education, regarding end-of-life care. During the simulation, nursing students demonstrated novice level skills in caring for clients who were near the end-of-life or actively dying. The simulation promoted the utilization of therapeutic communication and critical thinking skills needed to assess, plan, implement, and evaluate nursing care given to clients and families during the end of life.

Context: The simulation was implemented as a final project in a senior nursing course focusing on the care of adults living with chronic illness. Students were required to demonstrate overarching concepts taught throughout the course such as: self-management, uncertainty, spirituality, transitions in care, chronic pain, palliative care, hospice, and death. A checklist of required skills and activities to be utilized was provided for student review and included specific objectives such as performing a head to toe assessment and providing education on the hospice experience. The simulation was held in the Minka, a compact home on the University of Southern Indiana campus, to give students a realistic experience.

Grounding: End-of-life simulation addresses a gap in undergraduate nursing education. Time allotted for clinical hours and availability of clinical settings limits nursing students' experience of caring for clients and families near the end-of-life (Smith, et al., 2018). The Hospice: Dying at Home simulation gives a large cohort of nursing students the opportunity to care for a client and family near the end-of-life. This simulation provides a basis for how nurses care for and use therapeutic communication. When education on death and dying is minimized in undergraduate nursing programs, nursing students are left unprepared to care for clients and families near the end-of-life (Hjelmfors, Stromberg, Karlsson, Olsson, Jaarsma, 2016).

Approach: The simulation took place in two 20-minute parts, first covering admission into home hospice, and subsequently addressing care of the actively dying client. Students were given one week to prepare for the simulation by accessing the academic electronic health record, reading assigned documents, and reviewing the simulation checklist. On the day of the simulation, three students were randomly chosen to participate in each part, assuming the roles of nurse and family members. The remaining students observed the live-streamed simulation from a classroom. The large group met to debrief after each part. In addition to peer and faculty comments, a practicing hospice nurse was on-hand to observe, answer questions, and offer feedback.

Discussion: The Hospice: Dying at Home simulation positively impacted student learning by providing a comprehensive end-of-life experience for undergraduate nursing students. Overall, students indicated that the simulation was realistic, the debrief process was engaging, and the educational objectives were met. This simulation could be adapted to a variety of clinical settings including residential and acute care. If live-stream capabilities are not available, the class could be broken down into smaller sections with staggered starts. Caring for clients at the end-of-life is essential; simulation provides an effective method for students to practice this nursing responsibility.

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## IMPROVING FRESHMAN EDUCATIONAL EXPERIENCE THROUGH ENGINEERING DESIGN PROJECTS

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Keywords: Freshman, Design, Engineering

### Abstract:

This work introduces a team-oriented, hands-on engineering project to design a miniature racing car that will compete in a series of challenges. Each team, consisting of three to four members, will be given a battery and a motor by the beginning of the semester, and by the end of the semester, must come up with their own unique design, manufacture their design, present it to the class and engineering faculty and staff, and compete in a series of racing challenges. The miniature racing car project awakes a desire of learning about engineering while acquiring useful skills such as problem solving, machining, time management, leadership, teamwork, etc. In addition, the students learn how to utilize engineering software such as MATLAB, SolidWorks, AutoCAD, and others in a creative manner to benefit in the project. The project is centered on the Conceive, Design, Implement, and Operate (CDIO) process, which is an innovative educational technique based on the principle that product, process, and system development are a key context for an engineering education. This project enhances students' learning experience, helps each individual acquire technical and analytical skills, and allows them to experience what it's like to work on an engineering design using the proper software and hardware tools. According to United States Bureau of Labor Statistics, engineers hold approximately 1.7 billion jobs (Torpey, 2018). Therefore, the importance of a well-structured education is extremely important, not only for the university, but for the economy as well.

When such a design project was first introduced in engineering education, it seemed to be unattainable and overwhelming for first-year engineering students. First-year engineering students tend to question if they will be able to come up with creative designs and develop innovative devices within a relatively short period of time. Implementing a system engineering and freshman design course in the engineering core that challenges students to build a miniature racing car is beneficial for the students. This project breaks down the CDIO process into an easier understanding concept. Educational benefits that have been discovered are that students realize what they are interested in, discover what their roles are as a part of a team, gain soft and technical skills, and enjoy the project overall. The ultimate goal of the project is to have an operating car that can successfully complete all four races. The effectiveness of the project was quantitatively measured through surveys that exposed the students to different aspects of the course. This showed that although most students thought they did not have the skills to successfully complete the project, at the end, they were able to succeed and learn from the experience.

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## LEARNING BEYOND THE LECTURE: ENGAGING STUDENTS WITH REAL-TIME TECHNOLOGY AND GAMIFICATION

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Keywords: Interactive, PollEverywhere, gamification

### Abstract:

How do professors increase student engagement and gain quick feedback on the effectiveness of utilizing course-specific vocabulary? In my Lighting Design course, I've implemented online polling and gamification in a unique way that furthers student engagement and results in "students...[having the ability to] develop a more solid, integrated, useful understanding of concepts and their interrelationships and applicability." (Beatty, 2004).

I researched and attended conferences about Gamification which aims to "effectively utilize game dynamics to increase student motivation and achievement in the classroom" (Stott & Neustaedter, 2003). This led to me creating Descriptionary. It develops students' verbal communication skills and enhances their ability to describe and categorize images. Using the website [www.PollEverywhere.com](http://www.PollEverywhere.com), I created several image polls with similar visual qualities. This meant students needed to use more specific language to differentiate between them (Vyduna, Gessler, & Eby, 2007). My goal was to develop students' ability to utilize vocabulary and analyze images in a way that provides fun and immediate feedback. Research on in-class polls and voting systems in the classroom provides evidence that these methods promote attention and memory (McGivern & Coxon, 2015).

During a heavy vocabulary unit, I start off each class with by playing Descriptionary. The students take turns as the Descriptor, who is secretly assigned an image. They describe the image as the rest of the class is scrolling through the full list of images and trying to guess which one is being narrated. I then show the Descriptor what images the class has selected. This gives immediate feedback about how effective their explanation has been. Then they can revise and expand their language to guide students to the intended image. At the end of each round, we have a short class discussion evaluating what key words the Descriptor used that were most helpful and what additional information could have been provided to aid the class in identifying the image faster.

Through my reflection and the positive responses I received from students, this approach helped them playfully master the material. Afterwards, students demonstrated more confidence during class discussions; they also successfully used the vocabulary in other forms of assessment including discussion boards, tests, and essays. I theorize that part of this success stems from taking students through higher levels of cognition as explained in Bloom's Taxonomy (Bloom, B. S. 1956). By the end of this activity, students in both roles were able to:

- 1) Identify vocabulary
- 2) Describe and analyze images
- 3) Revise approach
- 4) Differentiate image characteristics
- 5) Hypothesize images based on student provided information
- 6) Appraise effectiveness of chosen terminology

I intend to implement and expand this concept into my other courses. This model can easily be applied to other subjects where students benefit from immediate feedback on their ability to analyze images with discipline-specific terminology including all works of art, medical imaging (x-rays, ultrasounds, etc), engineering diagrams, and microscopic pictures.

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## LET'S GET "DOWN ON THE PHARM"

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Keywords: interprofessional education, pharmacology, case integration, student reflection

### Abstract:

#### Topic/Problem statement

Effective communication and collaboration among professional caregivers from various disciplines is a necessary platform in any healthcare setting and it is essential for safe, effective patient care and optimal outcomes. An essential component that introduces risk for safety in all these settings is prescribing, administration, and education for medication management. Greater understanding of these issues among members of the healthcare team can promote greater understanding for patients and lead to improved health and decreased costs.

### Context

The project involves students completing a Master of Social Work degree and nurse practitioner students in three different specialty tracks in the Master of Science in Nursing Program. The goal of the project was to make pharmacy consultations available to all interested students to encourage discussion among disciplines and help them integrate knowledge and experiences they were exposed to in clinical settings.

### Grounding

There is evidence that student reflection and engagement of students in the learning process are important to achieve academic success. It has long been recognized in nursing that reflective practice is inherent to the learning process, but the intentional incorporation of reflection into curriculums has not been consistent. This project incorporated student participation and reflection as part of active learning.

### Approach

Students across disciplines receive communication about general topics for each of the 12 pharmacy consultations for the upcoming semester. Students are encouraged to reflect on the topics and submit reflection questions related to the topics based on gaps in their knowledge and based on patient cases to which they have been exposed. Students working in interprofessional teams are encouraged to work together to reflect on and submit case questions. Students are sent the pharmacy online weblinks a week prior to each consultation and again encouraged to submit relevant questions for the registered pharmacist.

### Reflection/Discussion/Lessons Learned

It was anticipated that interprofessional student teams would work together on difficult patient cases and reflect on gaps in knowledge of pharmacotherapeutics so they could learn from one another's perspectives to enrich their understanding individually and as a team while benefiting patients in their caseloads. Reflections on various issues in pharmacology based on topics disseminated at the beginning of the semester was open to other students in the courses, but the first order was on those interdisciplinary students working in interprofessional teams in the community. It was a coordinated effort to maintain communication among student groups so they could arrange time for the pharmacy consultations. The most significant barrier was unanticipated issues arising for the pharmacist, which led to occasional rescheduling, making it difficult for students who had arranged their time so they could

participate. The other barrier was occasional technological issues that hindered ability to open the online consultations.

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## MODIFIED PEER-ASSISTED LEARNING OPPORTUNITIES FOR UNDERGRADUATE STUDENTS

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Keywords: Undergraduate Mathematics, Active Learning, Math Education

### Abstract:

#### Topic/Problem Statement

Studies are regularly published about the importance of active learning. Active learning has been shown to help improve over all grades, reduce the number of DWF, increase students' persistence in the STEM fields, as well as many other benefits [6, 7, 9, 10, 5, 11]. However creating such in-class activities required a great deal of time and work. Regardless of one's personal teaching philosophy, creating these active learning activities can pose incredible challenges regardless of the size of institution and resources.

### Context

I reached out to several of our Mathematics and Education double majors, and Education with Mathematics emphasis majors with an opportunity to help me address the above issues. They were asked if they would like to help design collegiate course materials for Kentucky Wesleyan College's Mathematics course. The courses range from Foundations of Mathematics to Calculus III. These students select a course they were the most interested in and using examples they began designing their own work.

### Grounding

No studies have been found where others have implemented a similar system on the under-graduate level. However several other studies have been found at the graduate level. These programs were across various disciplines implementing peer-assisted learning (PAL), peer teaching (PT) or focused on a formal leadership training as a component in their learning outcomes.

In [4], they studied the effect when there was a slight shift in focus from strengthening discipline-specific knowledge to understanding effective teaching for a class of future educators. In [12], they designed an elective graduate pharmacy course that was taught by graduate students under the supervision of faculty members. In [3], graduate students developed work-shop sessions for engineering courses. In [8], graduate students developed an upper-level online green chemistry course. In [13], [2], and [1], all also reference the importance and the challenges when implementing such programs in their respected fields. All studies noted positive results with minimal to no negative side-effects.

### Approach

We started out with weekly meeting to allow students time to ask questions and get feedback about design preferences of the questions. Since all active learning activities are built in a program called LATEX they also needed time to learn how to use this program. Initially, they began designing active learning activities that could be grouped into one of two categories but as time went on they began to branch out in to a couple of other types. As activities were finished, they were used in the classroom if time permitted. Overall positive feedback from students were received in relation to the given active learning activity.

## Reflection

This collaborative work is in the early development. A discussion of future goals are other types of activities to branch into and what to do with such a wide range of activities. Also a discussion of the importance of recruiting more students. We will discuss the importance of creating the opportunities for new ideas to make their way into the courses' via these activities. Finally, the goal of using additional technologies, like light board and online grading systems, to further aid in the use of these activities will be outlined.

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## PEER MENTORING IMPROVES ACADEMIC OUTCOMES IN PROJECT-BASED RESEARCH METHODS AND STATISTICS COURSE

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Keywords: Peer Mentor, Student Centered, Academic Outcomes, Statistics

### Abstract:

Students often enter undergraduate research methods and statistics (RMS) courses with trepidation (Dempster & McCorry, 2009; Freng, Webber, Blatter, Wing, & Scott, 2011; Vittengl et al., 2004) fueled by factors including a fear of being under prepared for the material (Hudak & Anderson, 1990), believing that traditional lectures are passive (Gasiewski, Eagan, Garcia, Hurtado, & Chang, 2012), and being anxious about learning statistics (Macher, Paechter, Papousek, & Ruggeri, 2012). We redesigned our RMS course to be student-centered, involving a semester long research project, and including problem-based learning activities to mitigate student concern about RMS courses. We predicted that support from peer mentors would serve as scaffolding for student development in multiple domains, helping them successfully navigate the course and result in improved academic performance (Chi, Siler, Jeong, Yamauchi, & Hausmann, 2001). In the first semester of the study (Fall 2016), one section of the RMS course was taught with the inclusion of peer-mentors in the classroom (experimental condition), while the other section was taught in a traditional format (without peer-mentors; control condition). In the second semester of the study (Spring 2017), both sections of the RMS course employed peer-mentors in the classroom. A MANCOVA was conducted to assess the impact of the presence of peer-mentors in the classroom on exam performance while controlling for background variables. A 2 Classroom (A vs. B) by 2 Semester (Fall 2016 vs. Spring 2017) by 4 Evaluations (Test 1, Test 2, Test 3, Final Exam) multivariate analysis of covariance was conducted with 2 pretests as covariates. There was a significant main effect of Classroom,  $F(1, 164) = 12.54, p < 0.001; [MS]_e = 0.047$ . Two separate MANCOVAs were conducted to examine these differences. For Fall 2016, there was a main effect of Classroom,  $F(1, 86) = 12.78, p < 0.001; [MS]_e = 0.044$ . For Spring 2017, the only effect to reach significance was the Classroom x Evaluation 2-way interaction,  $F(3, 228) = 2.90, p < 0.05; [MS]_e = 0.010$ . The results revealed larger differences between the RMS sections during the first semester (Fall 2016) of the study where the sections differed with respect to the presence of peer-mentors in the classroom (control vs. experimental sections) than in the second semester (Spring 2017) of the study where both sections employed peer-mentors. The findings are in line with the hypotheses: students who received support and guidance from peer mentors fared better than their counterparts in the classroom without peer mentors. These results suggest that tailoring mentoring programs to specific issues within gatekeeper courses has a positive impact on student academic performance and may help in retaining those students within the major (Seymour, 2011).

## **SELF-REGULATED STUDYING BEHAVIOR, AND THE SOCIAL NORMS THAT INFLUENCE IT**

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Keywords: Social norms, studying, online course

### **Abstract:**

Since the seminal studies of Asch (1956) and Sherif (1936), decades of work show how others' actions and beliefs powerfully influence our own behaviors. Generally, people conform to the behaviors of others to either gain social approval (normative social influence) or to find suitable, effective behaviors in uncertain situations (informational social influence; e.g. Deutsch & Gerard, 1955). These two different motives correspond to different types of normative information: injunctive and descriptive norms, respectively. Injunctive norms tell us what we should or ought to do, and therefore refer to actions that others in a group approve of. They both prescribe accepted actions and proscribe inappropriate behaviors. If individuals adhere to these norms, they receive social acceptance; conversely, if one disregards these norms, the threat of social sanctions looms (Cialdini & Trost, 1998; Jacobson, Mortensen, & Cialdini, 2011). In contrast, descriptive norms provide information about the actions most others actually do in a given context, offering a consensus about which behaviors are likely to be effective (Jacobson et al., 2011; Kelley, 1967). Because individuals want to be accurate (Lundgren & Prislun, 1998), they adapt their behaviors to that of the group, particularly when situations are ambiguous, uncertain, or novel (Sherif, 1936). In educational contexts, it seems clear to us that teachers use injunctive norms when telling students what they should do (e.g. Dunlosky et al. 2013). But researchers sometimes find descriptive norms more powerfully influence behavior (e.g. Goldstein et al., 2008).

In the present work, we examine which type of norm is more effective at increasing self-regulated studying and performance in an online college course across two semesters. To do this, we randomly assigned 751 undergraduate Introductory Psychology students to receive email messages at the start of every content unit that either contained descriptive norms, injunctive norms, information about the course, or a no message control. Using Bayesian estimation, we found injunctive norms increased study behaviors aimed at fulfilling course requirements (completion of assigned activities), but did not improve learning outcomes. Descriptive norms increased behaviors aimed at improving knowledge (ungraded practice with activities after they were due), and improved performance. These results suggest that norms more effectively influence behavior when there is a match, or a sense of fit, between the goal of the behavior (fulfilling course requirements vs. learning) and the pull of a stated norm (social approval vs. efficacy). Because the goal of education is learning, this suggests descriptive norms have a greater value for motivating self-regulated study in authentic learning environments.

## **SERVICE-LEARNING: PERSPECTIVES OF ASSISTIVE TECHNOLOGY FOR PARTICIPATION IN UNIFIED GAMES**

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Keywords: Assistive Technology, Service-Learning, Physical Education, Occupational Therapy

### Abstract:

Topic/Problem Statement: Understanding the significance of occupation is a necessary concept occupational therapy (OT) students must understand while in the didactic years of academic education. There is limited research within the profession investigating teaching occupation to students (Krishnagiri, Hooper, Price, Taff, & Bilics, 2019). The purpose of this research was to explore perceptions of OT students regarding a service-learning project. The project involved creating assistive technology (AT) to increase student participation in occupations at their unified games.

Context: Special education staff from the Evansville-Vanderburgh School Corporation (EVSC) contacted OT faculty with the need to increase participation for students with severe physical and/or cognitive disabilities in their unified games. Through collaboration with both parties, a service-learning opportunity was developed for OT students to create assistive technology projects for students with severe physical and/or cognitive disabilities to increase their participation in various activities involved in the occupations of play and leisure.

Grounding: Occupational therapy educators need to understand the impact curriculum has on student perception and learning (Gitlow & Flecky, 2005). Gitlow and Flecky (2005) report “students agreed that their participation in service learning helped them apply course content to occupational therapy practice” (p. 550). It is imperative students in occupational therapy programs not only understand concepts underlying occupational therapy practice but also how to apply these concepts in a practice setting. Participating in service-learning activities increases students’ knowledge of disabilities and accessibility awareness and helps to define the role of advocacy (Gitlow & Flecky, 2005).

Approach: Second year OT students developed assistive technology for EVSC students with severe physical and/or cognitive disabilities to use to increase active participation. The AT prototypes were trialed with the EVSC students during adaptive physical education class with first year OT students present also. After the trial of the AT prototypes, second year OT students made any necessary revisions to the AT equipment. The first year OT students implemented the AT equipment with the EVSC students during the unified games event. First- and second-year OT students then completed an IRB approved questionnaire about the service-learning experience.

Reflection/Discussion: Fifty-nine students participated in the IRB approved study. Results indicated that 63.89% (n=46) of participants strongly agree that the community service aspect of the project helped them to see how the subject matter can be used in everyday life. When participants were asked if the service provided through this course benefited the community, 73.61% (n=53) strongly agreed. 63.89% (n=46) strongly agree and 15.28% (n=11) agree the community service aspect of this activity helped to develop problem-solving skills compared to 2.78% (n=2) were not sure. 61.11% (n=44) of participants strongly agree and 20.83% (n=15) agree they can make a difference in their community. Survey results indicate that most students believed this project helped them become more comfortable working with



people different from themselves. All participants agreed that service-learning should be incorporated into more OT classes. OT faculty plan to explore incorporating more service-learning activities into the curriculum in the future.

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<https://doi.org/10.5014/ajot.2019.032789>

## **SUMMER FUN WITH IPE: LESSON LEARNED - DON'T GET BURNED**

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Keywords: Interprofessional education, simulation, communication

### **Abstract:**

Healthcare is an increasingly complex environment, comprised of multiple disciplines and clients with various disease processes and psychosocial issues. This complexity requires that all healthcare professionals, regardless of their discipline, be able to effectively work together within teams. The inability to function within a team as well as the inability to communicate effectively and share vital information, prioritize, and make appropriate decisions can result in patient harm and negative outcomes. Competency for effective teamwork is having knowledge of each healthcare professional's roles and responsibilities (Interprofessional Education Collaboration Expert Panel, 2011). While this information can be learned "on the job", the ability to prepare future healthcare professionals for working in interprofessional/interdisciplinary teams is crucial. Promoting effective teams and team dynamics requires faculty to provide opportunities for healthcare professions students to have experiences that support interdisciplinary teamwork.

### **Context**

This scholarly teaching activity evolved from a need to incorporate more interprofessional activities for students during the summer semester. Three disciplines from NURS488, DMS347, and RADT415 came together during the summer 2019 semester to develop an interprofessional activity with a focus on effective communication and teamwork in a simulated environment. The intended student outcomes were to practice effective communication amongst healthcare team members in order to facilitate positive patient outcomes in a triage scenario and to promote mutual respect and increased awareness of roles and responsibilities amongst the team members.

### **Grounding**

Medical Errors are currently the third leading cause of death in the United States. The most common root cause of medical error is failure to communicate, thus further highlighting the need for simulation based interprofessional education (IPE) activities. Designing simulations by applying the International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Practice: Simulation-Enhanced Interprofessional Education (SIM-IPE) required criteria, faculty can begin to develop simulations that allow students of multiple professionals to come together to accomplish the same objectives by communicating clearly and effectively. Simulation based interprofessional education can be supported and guided with Kolb's Experiential Learning Theory. This theory consists of four major parts, all of which can be used to guide the entire simulation process: a concrete experience (simulation), reflective observation (debrief), An abstract conceptualization (post-simulation evaluation), and active experimentation (follow-up simulations, clinical experience, and work experience) (INACSL Standards Committee, 2016).

## Approach

For the scenario, faculty enlisted the help of USI's Public Safety officers to act as Emergency Medical Technicians (EMTs) who were transporting three simulated patients from the field into the simulated hospital emergency room environment. Each EMT presented one of the three patient's cases to the receiving team comprised of 1-2 nursing leadership students and either radiography students or diagnostic medical sonography students. One patient was received only by nursing students. Nursing leadership students were then tasked with deciding what triage imaging orders might be necessary for the patient. Two radiography and two diagnostic medical sonography student representatives were present in the simulated hospital emergency room and proceeded to simulate image acquisition and provide radiologist's reports on the imaging exams. The remainder of the nursing, diagnostic medical sonography students, and radiography students from the involved courses were in a classroom setting observing a live video feed of each simulation room scenario. The teams of students in the simulation center each took a turn advocating for their patient to the lead surgical nurse as the patient whose condition was most critical, therefore requiring the next available surgical intervention. Following the live simulation, the students from the simulation center joined the other students in the classroom setting for a full debriefing of the activity.

This was the first attempt at such a scenario ever attempted in our college. Although simulation has a long history of utilization in single discipline formats for a variety of purposes, bringing together these particular disciplines for an interprofessional learning experience was innovative; especially when combining the collaboration of our public safety officers into the scenario. None of these particular courses had ever had an IPE activity implemented prior to this scenario even though literature supports the multiple benefits of interprofessional education through simulation.

## Reflection/discussions/lessons learned

When reflecting on this interprofessional simulation there were aspects that went well and aspects that presented challenges. When debriefing, simulation leaders conducted a SWOT analysis to discuss what went well and what could be improved. Leadership incorporated their own observations as well as student comments during the debriefing session to help drive the analysis. Strengths included the communication and cooperation of the leadership members involved in designing and implementing the simulation, as well as their strong commitment to an interprofessional learning experience. Another strength was the availability of the college's state-of-the-art simulation center and the staff member who organizes and administers the simulation process. Lack of clear knowledge about each other's profession proved to be a weakness. Students also felt that the simulation should include certain equipment to make it more realistic. In light of these reflections, faculty propose that students create video projects highlighting the scope of practice of their respective professions as an opportunity for future interprofessional simulations. Additional ancillary equipment will be included to promote a more realistic feeling to the simulation. Threats include the reluctance of some students to fully engage in the interprofessional experience. Faculty plan to stress the importance of interprofessional education and collaboration and their roles in the team approach to healthcare. Faculty will thoroughly explain the objectives of the simulation and debrief with students at the conclusion to elicit feedback from all parties involved. Overall, faculty learned that simulations do not go perfectly the first time. Many unexpected circumstances may occur. Debriefing and careful observation are essential to the learning process so that errors can be corrected and a more robust experience can be conducted in the future.

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## TEACHABLE TEACHERS: USING CIRCUMSPECT FEEDBACK TO IMPROVE TEACHING AND LEARNING

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Keywords: Reflective teaching; feedback; improve teaching; improve learning

### Abstract:

Teachers facilitate student learning, and when student learning outcomes need to improve, teaching practice needs to improve. Teachers may receive wonderful training, envision the ideal standard of teaching, know how to obtain it, and be provided with all the necessary resources to succeed; but teachers must purposefully reflect on that information to know how to incorporate it into teaching practice (Ramos-Rodríguez, Flores Martínez, & Ponte, 2017, p. 87). Accurate, circumspect data concerning the individual's current teaching effectiveness is helpful for the teacher to effectively reflect and improve upon their teaching skill and practice (Salifu, Worlanyo, & Kuyini, 2017, p. 725). Reflective teaching leads to improved student learning when teachers analytically reflect on their teaching practice, student interactions, and personal experience in order to accomplish a desired outcome (Ramos-Rodríguez et al., 2016, p. 89). Feedback from one source is good, but feedback from multiple sources such as oneself, students, colleagues, supervisors, and training materials will provide a more complete data set (Dobbs, p. 10; Vivekananda-Schmidt, MacKillop, Crossley, & Wade, 2013, p. 439). Evaluations can focus on strengths only (Rath, 2017, p. 30) or look at the entire performance and skill set of the person being evaluated (Caretta-Weyer, Kraut, Kornegay, & Yarris, pp. 367–368). Multiple-source feedback facilitates reflective teaching practices and helps instructors improve their teaching philosophy, pedagogy, and practice (Postholm, 2018, p. 429). Reflective teaching means better teaching, which means better student learning.

This presentation will discuss the benefits of reflective teaching practices on multiple-source strength-focused and comprehensive feedback to improve teaching and learning outcomes. Additionally, it will suggest a 4-step pattern for incorporating what is learned; a) develop a plan to improve, b) seek a way to be held accountable, c) practice the actions, d) reflect on the outcomes (Sherman, 2012).

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## THE ROLE OF IDENTITY AND EMPATHY IN DRIVING SOCIAL ENTREPRENEURSHIP PERCEPTIONS

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Keywords: Identity, intention, empathy, and social needs orientation.

### Abstract:

Social entrepreneurship consists of applying innovative and entrepreneurial thinking in taking the initiative to address societal problems (e.g., related to health, the environment, fair trade, etc.) (Miller et al., 2012). Implied in this definition of social entrepreneurship is that certain individuals have the skill set and motivation to make a difference in a social need domain (Smith & Woodworth, 2012). While the emerging social entrepreneurship literature has provided some good descriptive and case-based studies, more rigorous theoretical and empirical work is needed to understand the unique motivational processes implicated in social needs-based behavior (i.e., creating an entity to address a social problem).

The present study addresses a question at the core of social entrepreneurship education: "What motivates students with an interest in social entrepreneurship to transfer their learning beyond the classroom?" Many examples of "the how to" - examining content and various pedagogical techniques appear in the literature. In contrast, less attention has been devoted to the exploration of the underlying processes by which students are influenced by entrepreneurial education. Such research would provide insight into why students, particularly those interested in social ventures, are motivated to transfer learning beyond the classroom.

While the importance of transfer of learning has long been recognized, questions have been raised regarding learning transfer. In fact, research on the design and delivery of learning interventions have found a lack of transfer as the norm rather than the exception (Tziner et al, 1991; Brinkerhoff & Montesino, 1995). Given the importance of transfer of learning to higher education, the transfer problem may be one of the most significant challenges in the scholarship of teaching and learning (Perkins, 1987; Ramocki, 2007).

The transfer literature has highlighted issues of motivation and skill development in the effectiveness of transfer (Noe, 1986). Further, the literature raises the issue of a "disposition effect" (Perkins & Tishman, 2001) which signals the importance of concepts such as identity and empathy in addition to ability in addressing transfer of learning.

This research integrates literature related to identity (self-concept), empathy (sharing the emotion of another), and self-regulation (motivational self-perceptions) to address how students evolve to view themselves as capable social entrepreneurs. Given the significance of identity and skill development in entrepreneurship education (Smith & Woodworth, 2012), the prominent role played by efficacy perceptions and intention in entrepreneurial behavior (Krueger, 2000), and the relationship empathy has with helping behavior (Unger & Thumhuri, 2007), examining such constructs could provide important insights for educators. This research surveys over 500 students from five different universities in the United States. We included students from multiple programs by design as our objective was to explore broader student processes and not the influence of a specific pedagogical technique. We used a moderated-mediation regression model to examine the combined influence of identity, intention, and empathy on social needs-orientated efficacy (Preacher et al., 2007).

Student entrepreneurial identity was found to be a significant predictor of entrepreneurial intention. Further, identity was found to work through the interaction of intent and empathy to influence social entrepreneurship efficacy. Lastly, student identity as an entrepreneur was found to interact with empathy such that stronger identification has a greater effect on social entrepreneurship efficacy when students have higher empathy. To our knowledge, this is the first study to examine these combined effects in a social needs-oriented educational context. Findings of this study hold implications for increasing understanding of student motivation related to the creation of social needs-oriented ventures.

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## **THIS IS JEOPARDY!**

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Keywords: Classroom Interaction, Game Play, Attention

### Abstract:

#### Topic/Problem Statement

Keeping student's interest in class can be challenging. Therefore, it's incumbent upon us as educators to find unique and creative ways to deliver course material. Delivering course material in the form of a game, in the classroom setting, is a great way to engage students. Students typically display a high interest in games (Siko, Barbour, & Toker, n.d.) and playing games in the classroom enhances students' critical thinking skills and stimulates their interest (Chow, Woodford, & Maes, 2011). In this presentation, I'll discuss how using a game (in this case, Jeopardy) in the classroom leads to an enjoyable time for both students and the instructor.

#### Context

UNIV 101 serves as an introductory success course for incoming freshman at the University of Southern Indiana. In this course, students are introduced to a variety of topics related to the university and the particular college which their major belongs. Given that UNIV 101 is taken during the students' first semester in college, new freshman students are understandably adjusting and acclimating to the all-encompassing college life. This provides a great time for faculty to introduce college in a fun and creative way while also assessing how much information students have retained from the course.

#### Approach

During one of the class sessions, as a way to assess how much the students had learned from UNIV 101 of both health profession topics and university centric topics, a Jeopardy game was devised using Microsoft PowerPoint. Great care was used to model the game as much as possible to the real game. For example, an introductory Jeopardy slide played the introduction music, five categories were used during game play and a final Jeopardy round including the widely known theme music was incorporated into the game.

Given that there were 24 students in the class, students were placed into three groups. These three groups worked collaboratively within their group to answer the questions. Instead of a buzzer which participants use to indicate they know the answer, students raised their hand.

The game itself was displayed on a white dry erase board via a projector. This allowed the instructor to "x" out questions with a dry erase marker after they had been selected (to prevent re-selection of a question).

#### Reflection/ Lessons Learned

Students appreciated the format of the game and became very competitive during play, which spoke to their high level of comprehension of the information discussed in the course. The students also worked very well within their groups while trying to answer the questions. This speaks to the level of cohesion and collaboration group games can bring to the classroom. Freshman come to the university not knowing many of their fellow classmates. Playing group games in the classroom allow students to meet

and interact with each other. By building relationships with other students, a student's ability to be successful in college greatly increases.

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## **TRANSFORMATIONAL LEADERSHIP: MOTIVATING STUDENTS TO LEARN**

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**Keywords:** Transformational Leadership and student motivation, Reflecting on leadership to motivate students, Transformational goals lead to student achievement

**Abstract:**

**Topic / Problem Statement:**

Transformational leaders encourage, inspire, and motivate others. Understanding transformational leadership will allow teachers to create positive environments for their students to be successful. The transformational leadership model can be used by teachers to lead by example, which in turn encourages students to greater levels of achievement.

**Context:**

Transformational leadership has been described as the leader's ability to engage and connect with followers to reach an individuals' maximum potential (Winston & Patterson, 2006, p. 219). Bass (1985), described transformational leadership as the relationship of leaders and supporters having a direct effect on each other and that transformational leaders gather trust and appreciation from their supporters. The transformation process requires teacher leaders to rethink their roles and responsibilities in school (Gunn, 2018).

**Grounding:**

Transformational leaders have specific behaviors that make him or her transformational. The behaviors are (1) idealized impact, (2) intellectual incitement, and (3) attributed charisma (Khan & Ismail, 2017, p. 2). Rowold and Schloltz (2009), posit the leader who uses transformational style emphasizes higher motive development, and arouses followers' motivation and positive emotions by means of creating and representing an inspiring vision of the future (p. 36).

**Approach:**

Learning about transformational leadership allows participants the opportunity to look at them as a leader and feel more comfortable about leadership. As teachers advocate for themselves and their students, they will feel more confident as a leader to make the needed changes in education.

The role of a leader is not only to provide leadership to followers but also to build and maintain an organization, which is successful. Dey (2012), described transformational leadership as, "the process whereby an individual engaged with others and creates a connection that raises the level of motivation and morality in both the leader and the follower" (p. 65). Within a classroom the teacher is the leader and the students are the followers however a transformational leader / teacher will work to create more leaders within the classroom.

How teachers can use transformational leadership to help their students learn:

- 1) Transformational leaders emphasize collaboration within their classroom by students to students and teachers to students.
- 2) Transformational leaders mentor students allowing for students to grow and succeed.
- 3) Transformational leaders use their story to inspire their students.

### Reflection / Discussion / Lessons Learned:

Transformational leaders impact student learning and success in a variety of ways. Teacher Leaders are willing to take risks and view failures as steps in the growth process. Teacher leaders invite diverse perspectives and use feedback to grow as a leader. Teacher leaders are decisive leaders who seek input from others when making decisions. Teacher leaders seek input and feedback from all stakeholders throughout the decision-making process. Teacher leaders focus on transformational goals that will lead to dramatic changes in student achievement and professional practice (Teacher Leaders, 2016).

Teachers who understand and are able to reflect on their leadership will be able to see how their leadership plays a role in their student's success and be able to take the components of transformational leadership and apply them to their practice.

### What is Transformational Teaching in the classroom?

- 1) Making sure students know the why of their work? Especially in adults when they are more likely to learn if they know how the work will affect their lives.
- 2) Make the classroom exciting and inspiring for students to learn.
- 3) Pay attention to individual differences and personalize learning experiences for the students.
- 4) Conference with students with the goal of understanding the student's needs.
- 5) Provide positive and constructive feedback.

### What can you do to become a transformational leader / teacher?

- 1) Share best practices – Collaboration
- 2) Find a mentor – Even with years of experience finding someone you can trust and rely on is critical.
- 3) Observe other teachers – Be open to learning from others outside of what you directly teach.
- 4) Make changes every semester or year – This could be books, assignments, syllabus, etc.
- 5) Model for your students 6) Care for your students – The role of a teacher transcends beyond the classroom

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